

VITAL and HEALTH STATISTICS
DATA FROM THE NATIONAL HEALTH SURVEY

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Selected Symptoms of Psychological Distress

United States

Frequencies of specified complaints, and an analysis of differentials
by sex, race, and age, and by other demographic characteristics.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Health Services and Mental Health Administration



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COOPERATION OF THE BUREAU OF THE CENSUS

In accordance with specifications established by the National Health Survey, the Bureau of the Census, under a contractual agreement, participated in the design and selection of the sample, and carried out the first stage of the field interviewing and certain parts of the statistical processing.

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IN THIS REPORT findings are presented on rates of positive response to 12 questions concerning symptoms which have been used in other studies as indicators of psychological distress. The rates are presented by sex, race, age, and nine other selected demographic variables. The data for this report were obtained from Cycle I of the Health Examination Survey (HES). This survey was conducted in 1960-62 on a probability sample of 7,710 persons selected to represent the 111 million adults in the U.S. civilian, noninstitutional population aged 18-79 years. Of these, 6,672 adults, or more than 85 percent, were examined.

Symptom rates by sex, race, and age are presented for each of the 12 self-report items. Symptom rates by sex and race for each of the selected demographic variables were evaluated for statistically significant differences between actual and age-adjusted expected rates, for general symptom patterns or trends of higher or lower than expected rates for the 12 symptoms, and for consistency among the four sex-race groups of white and Negro men and women.

Significant differences and/or trends in symptom rates were found not only by sex, race, and age but also by the other demographic characteristics. The most significant differences were with sex and age. Women had higher rates than men for all 12 symptoms and seven symptoms varied significantly by age. Findings of particular interest were that higher symptom rates were reported by the relatively lower educated and lower income groups, as could be expected based on other studies. Lower rates were reported by never married individuals, particularly among white women compared with their married, divorced, separated, or widowed cohorts; by working men and women compared with retired men and women housekeepers respectively, and by residents of metropolitan areas compared with residents in other urban and rural areas.

Reported rates of having had a nervous breakdown varied widely by sex, age, and education with a rate for lower educated older women of 14.6 percent down to a rate of less than 1.0 percent for higher educated younger men and women. The overall percent reporting having had a nervous breakdown was 4.9 percent and an additional 12.8 percent reported having felt an impending nervous breakdown for a combined rate of 17.7 percent or almost one out of five with an estimated 20 million adults having experienced such severe psychological distress.

SYMBOLS

Data not available-----	---
Category not applicable-----	...
Quantity zero-----	-
Figure does not meet standards of reliability or precision-----	*

SELECTED SYMPTOMS OF PSYCHOLOGICAL DISTRESS

Harold J. Dupuy, Ph.D., Arnold Engel, M.D., Brian K. Devine, James Scanlon, and Linda Querec
Division of Health Examination Statistics

INTRODUCTION

The National Health Survey uses three methods for obtaining information about the health of the U.S. population. The first is a household interview in which individuals are asked to give information related to their health or the health of other household members. The second method is the utilization of available health records and the third is direct examination, implemented by the Health Examination Survey. By drawing samples and administering a medical and dental examination and related tests and measurements to the individuals selected, the Health Examination Survey attempts to characterize the health status of the population under study.

The first cycle of the Health Examination Survey involved the examination of a nationwide probability sample of the civilian, noninstitutional population aged 18-79 years. Between October 1959 and December 1962 6,672 individuals of a sample of 7,710 received standardized 2-hour examinations conducted by medical and other staff members of the survey in specially designed mobile clinics.

The major concern of this survey was to gather information dealing with the prevalence of cardiovascular diseases, arthritis, and certain other chronic conditions, with dental health, and with the distribution of a number of anthropometric and sensory characteristics in the adult population. More than 30 reports have been published presenting these findings. However, data on additional conditions and characteristics were ob-

tained, both from the examination itself and from the Medical History Questionnaire (HES-204) completed by each examinee. The present report gives data on issues of continuing interest and relevance to the study of psychological distress even though they were derived from a survey made a number of years ago.

Earlier publications in this series describe the general plan and initial program of the Health Examination Survey, the sample population, the response, and the probable effect of nonresponse on the findings. The master sampling design was essentially self-weighting. However some technical adjustments were used to bring the survey results into closer alignment with the target population with respect to geography, population density, age, and sex.^{1,2}

Specific psychological, physical, or psychosomatic symptoms have often been used as indices of psychological distress. Twelve symptom items which have been used in a number of studies³⁻⁹ of psychological distress were selected and included in the first cycle of the Health Examination Survey. This report presents findings on the response rates of the 12 symptoms with sex, race, and age and the relationships of these symptoms with nine other selected demographic variables by sex and race with age statistically controlled. The analysis focuses on the response rates, variations, trends, and consistency in rates of these self-reported symptoms by 12 demographic variables; and on some interrelationships both among the symptoms and between the symptoms and the demographic variables.

THE MEDICAL HISTORY QUESTIONNAIRE

The medical examination was initiated with a brief history obtained by a receptionist-interviewer in the clinic. The examinee was then asked to complete a 25-minute Medical History Questionnaire (HES-204). This self-administered instrument consisted of 74 items which were generally completed by checking the appropriate entry. Areas covered in the questionnaire included cardiovascular disease, arthritis and rheumatism, diabetes, vision, hearing, and psychological distress. The 12 items of psychological distress were interspersed throughout the questionnaire. Thus the items were administered in a medical setting and not as a separate set of items.

The receptionist reviewed the history both for completeness and for consistency and queried the examinee where any deficiencies were evident. The medical atmosphere in which this information was gathered and the guarantee of confidentiality of results of the complete examination would tend to encourage frank and honest responses to the questionnaire items.

The Symptoms of Psychological Distress

Twelve of the items on the Medical History Questionnaire dealt with psychological symptoms of the following nature:

"Do your hands ever tremble enough to bother you? Yes No ?"

"Are you ever bothered by nightmares? Yes No ?"

These form the basis of this report and tap areas such as the experience of a past emotional crisis or "nervous breakdown," general feelings of nervousness or tension, sleep difficulties, disturbing dreams or nightmares, anxiety manifested in trembling or excessively perspiring hands, and psychological inertia or immobilization.

Four of these items dealt with more specific bodily complaints. Such complaints are viewed by some psychiatrists and psychologists as expressions of emotional stress when a medical examination reveals no underlying physiological cause for the dysfunction.

The questionnaire items incorporate terminology which people themselves use in referring to mental health or illness. In spite of the vagueness of the words, people tend to refer to an emotional crisis as a "nervous breakdown," and to anxiety feelings as "nervousness," and such terms have widespread common use.

The 12 items, the response options, the positive scored responses, and some studies using somewhat similar items are shown in table A. While questions of similar content have been used in many studies, in general, the content of specific items, the number of common items used, and the response options have varied across different studies. For example on the item of sleep disturbance in the Health Examination Survey ("Do you ever have any trouble getting to sleep or staying asleep?") the following forms have been used:

A. Do you have trouble in getting to sleep or staying asleep?

Often, Sometimes, Almost never.³

B. Do you ever have any trouble in getting to sleep and staying asleep?

Often, Sometimes, Hardly ever, or Never.⁴

C. Do you ever have any trouble getting to sleep or staying asleep?

Nearly all the time, Pretty often, Not very much, Never.⁵

D. Do you often have difficulty in falling asleep or staying asleep?

Yes No⁶

E. Do you ever have any trouble in getting to sleep or staying asleep? Would you say:

Often, Sometimes, or Never?⁷

The most common variations noted in questions used in different studies are in the time referent of the symptom (have you ever, do you ever, are you ever, are you, etc.) and in the kinds of response options offered in terms of the frequency of occurrence of the symptom (often, sometimes, al-

most never *or* nearly all the time, pretty often, not very much, never), intensity of the symptom (are you bothered: quite a bit, a little, not at all, *or* simply yes, no.), and in the range or number of response options offered for each symptom which commonly varies from two to four or five options. These variations are sufficiently great to preclude making specific symptom comparisons across

studies or even in making intersymptom comparisons of prevalence within a given study when these variations occur.

In evaluating the findings presented in this study, the content and response options of the questions used as symptoms of psychological distress should be noted since they probably contributed to substantial variations in examinees' subjective in-

Table A. The 12 symptoms of psychological distress used in this study and the response options, and other studies using similar items

(Positive response options are underlined)

Other studies ¹	Symptom	Response option
A, D,	Have you ever had a nervous breakdown?	<u>Yes</u> No ?
B,C	Have you ever felt you were going to have a nervous breakdown?	<u>Yes</u> No ?
A,B,C, E	Have you ever been bothered by nervousness, feeling fidgety and tense?	<u>Yes</u> No ?
C, E	Have there ever been times when you couldn't take care of things because you just couldn't get going?	<u>Yes</u> No ?
A,B,C,D,E	Do you ever have any trouble getting to sleep or staying asleep?	<u>Yes</u> No ?
A,B,C, E	Do your hands ever tremble enough to bother you?	<u>Yes</u> No ?
A,B,C	Are you ever bothered by nightmares?	<u>Yes</u> No ?
A,B,C	Are you troubled by your hands sweating so that you feel damp and clammy?	<u>Yes</u> No ?
A, D,E	Have you ever fainted or blacked out?	<u>Yes</u> No ?
A,B,C,D,E	In the past few years have you had any headaches? <u>If Yes</u> How often? <u>Every few days</u> Less often Do they bother you <u>quite a bit</u> Just a little	Yes No ?
A,B,C,D	Have you ever had spells of dizziness? <u>If Yes</u> How often? <u>Every few days</u> Less often Do they bother you <u>quite a bit</u> Just a little	Yes No ?
A,B,C,D,E	Have you ever been bothered by your heart beating hard? <u>If yes</u> How often? <u>Every few days</u> Less often Does this bother you <u>quite a bit</u> Just a little	Yes No ?

¹Other studies with somewhat similar items are:

- A. Army Neuropsychiatric Screening Adjunct³
- B. Stirling County study^{4,10}
- C. Nationwide study⁵
- D. Cornell Medical Index⁶
- E. Midtown Manhattan study⁷⁻⁹

terpretations and response decisions. Whether a respondent answers yes or no to a question such as "Do you ever have any trouble getting to sleep or staying asleep?" depends upon how literally he interprets the phrase "Do you *ever* have *any* trouble...." A person having had a little trouble getting to sleep one night during the previous week, although normally a sound sleeper, may be just as apt to answer yes as someone with chronic insomnia. Also, a question such as this, when limited to a yes or no answer, could be answered with a yes by everyone because, at least occasionally, everyone probably has this problem. Thus the respondent's answer depends almost solely upon his individual interpretation of what is wanted or what he wishes to express.

A modification of what was acceptable as an affirmative answer was made on three of these items (headaches, dizziness, heart palpitations). These items had four possible responses. Preliminary analyses showed that there was a greater correlation between the more frequent and/or severe manifestations of these symptoms with a history of having had or feeling that one was going to have a nervous breakdown. Therefore it was decided to omit the responses of less often and less severe in determining the prevalence of these conditions.

Most of the symptom items were taken with slight modifications from the questionnaire developed by the University of Michigan's Survey Research Center and used in the Nationwide Home Interview Survey sponsored by the Joint Commission on Mental Illness and Health. The Joint Commission's Home Survey staff interviewed a probability sample of 2,460 Americans over the age of 21 and living at home in 1957, in an attempt to describe the attitudes which Americans have toward mental health and illness. Results of that study have been published in *Americans View Their Mental Health*.⁵

A major section of the Michigan questionnaire consisted of a checklist of 20 specific psychological, physical, or psychosomatic symptoms. Most of these symptom items had been included in the survey interviews of two earlier community mental health studies: The Stirling County study and the Midtown Manhattan study.^{4,8} A few were prepared specifically for the Joint Commission Survey.

Results of these studies and work with the Army Neuropsychiatric Screening Adjunct, which also incorporated the symptom checklist technique, indicated that these items were effective in differentiating respondents diagnosed by psychiatrists as having psychological difficulty from respondents diagnosed as not having such difficulty.³ When used in conjunction with additional mental health information, such symptom checklists have been found useful in psychiatric screening and in identifying and classifying emotionally impaired individuals in prevalence studies.⁴

The worth of the individual items as symptoms of psychological distress were evaluated in terms of their relationship with the items on nervous breakdown and the feeling that one was going to have a nervous breakdown. This was considered the only reasonable criterion available for use in item analysis. Examinees responding yes to either or both of these items were grouped into one category and those answering no or ? were grouped into another category. The responses to the 10 remaining items were then correlated with this criterion to determine the degree and direction of relationship of each item with the criterion. Table B presents the phi coefficients of correlation with the criterion and the percent positive response for each symptom. The results of this analysis indicate that each symptom is positively and significantly related to the criterion. While the phi coefficient is a product moment coefficient, the size of the coefficient in a 2 x 2 table can be maximal only when the proportions answering each item are the same (p. 334, ref. 11). Taking this limitation into consideration, the obtained phi coefficients represent moderate to high relationships with the criterion in terms of what is usually obtained in item analyses.

In order to check on the internal consistency of these items the 10 symptoms plus the criterion were scored 0 or 1 (1 for a positive response) and formed into a scale. A Kuder-Richardson estimate of internal-consistency reliability (p. 461, ref. 11) was computed although the assumptions for this test were not well met here (p. 459, ref. 11). The coefficient was .70 which, while low, does support the item-criterion analysis that these symptoms do reflect a common factor or syndrome of symptom response.

Table B. Phi coefficients of symptoms with criterion and percent positive response for each symptom

Symptom	Percent positive response	ϕ with criterion ¹
<u>Criterion</u>		
Total-----	17.7	-
Had a nervous breakdown-----	4.9	-
Felt an impending nervous breakdown excluding those who had had a nervous breakdown-----	12.8	-
<u>Remaining symptoms</u>		
Nervousness-----	58.5	.311
Inertia-----	25.1	.310
Insomnia-----	32.4	.287
Trembling hands-----	9.0	.242
Nightmares-----	10.1	.164
Perspiring hands-----	19.3	.150
Fainting-----	23.3	.139
Any headaches in past few years-----	21.1	.197
Dizziness-----	9.1	.195
Heart palpitations-----	4.8	.172

¹All significant beyond .001 level and all positive correlations. Phi coefficients, ϕ , are based on unweighted sample (N = 6,672).

FINDINGS

Sex, Race, and Age

This section covers the relationships of the 12 symptoms with sex, race, and age. Racial comparisons are limited in this analysis to the white and Negro populations. The sample upon which these findings are based was too small to be adequately representative of the "other" racial groups, which are predominantly American Indians and Orientals. The racial breakdown of the sample reflects the actual racial distribution of the adult U.S. population. Thus 88 percent of the individuals sampled were white, 10 percent, Negro, with 2 percent making up the "other" category.

Approximately 78 percent of the adults examined in Cycle I of the Health Examination Survey reported one or more of these selected symptoms. The mean number of symptoms reported by the total population was 2.29, while the median was 1.90. Some 86 of every 100 women and 69 of every 100 men reported at least one symptom. The mean and median for women of all races were 2.84 and 2.59 respectively, while for men they were 1.68 and 1.17, respectively (table 14).

Women had significantly higher rates than men for every symptom. The symptom with the greatest sex difference was nervousness with 71 percent of the women and 45 percent of the men responding "yes." Among the white population, women had significantly higher rates than men for

all symptoms; Negro women had significantly higher rates than Negro men for nine of the symptoms, with no significant differences found for nightmares, perspiring hands, and palpitating heart (tables 2-13).

There were only two symptoms with significant differences by race for the same sex for both

men and women. These were nervousness, with white men and women having a rate more than 15 percent higher than Negroes, and dizziness, wherein Negro men and women had slightly higher rates (2.3 percent and 5.4 percent higher respectively by sex) than white men and women. Among males, Negro men had a significantly higher

Table C. Significant correlations of symptoms with sex, race within sex, and age

Symptom	Sex ¹	Race within sex ²		Age ³
		Male	Female	
Coefficient ⁴ -----	Ø	Ø	Ø	C
Nervous breakdown-----	.077		^a .055(N)	.122
Felt impending nervous breakdown-----	.146			.068
Nervousness-----	.261	.122(W)	.148(W)	.092
Inertia-----	.173			
Insomnia-----	.167			.168
Trembling hands-----	.064			
Nightmares-----	.087	.065(N)		
Perspiring hands (total)-----	.057		.061(W)	
		White-----
		Negro-----
Fainting-----	.149		.079(W)	
Headache-----	.171			^a .055
Dizziness-----	.070	^a .048(N)	.056(N)	.113
Heart palpitations-----	.048			.115

¹Females are consistently higher.

²()=Race (White, Negro) with higher rates.

³See text for discussion of age trends. Age relationships are for total sample except for perspiring hands.

⁴Significant at .001 level unless noted by ^asign, then at .01; blanks not significant at .05 level.

Ø =Phi coefficient.

C=Contingency coefficient.

NOTE: Correlations and significance levels were computed by Chi-square analysis on unweighted sample (N=6,672).

rate for nightmares. Among females, white women had higher rates for nervousness, perspiring hands, and fainting, while Negro women had a higher rate for nervous breakdown.

Trends by age were both complex and varied. In general, older people had higher rates for nervous breakdown, insomnia, dizziness, and heart palpitations, while rates for impending nervous breakdown, nervousness, and headaches were generally higher among the 25- to 54-year age groups and were curvilinear with age. Perspiring hands among white persons was highest among younger men and women and showed a linear decrease with age; while among Negroes no difference by age occurred for this symptom. Age was not significantly related to inertia, trembling hands, nightmares, or fainting, although rates tended to increase with age among Negro women for trembling hands and for inertia and fainting among Negro men.

Positive responses to the 12 symptoms were summed for each individual into a 0-11-point scale (the two symptoms of nervous breakdown and feeling that one was going to have a nervous breakdown were counted as only one symptom because of their logical relationships). On this 12-point scale, Negro men and women both showed a significant upward trend of higher symptoms with age, however, white men and women did not show an age trend. Thus the different age trends among the symptoms canceled each other out among the white examinees, but not among Negroes. Tables C and D and tables 1-13 provide summary and detailed data bearing on the above discussion.

Other Demographic Variables

This section covers the relationships of the 12 symptoms with nine selected demographic variables including education, income, marital status, usual activity status, occupation, industry, geographic region, population size, and place description. Appendix II contains a detailed description of each of these variables. Information on the first six of these demographic variables was obtained through household interviews conducted from 1 to 2 weeks prior to the actual examination of each person by interviewers specially trained for this survey. Information on the last

three variables was obtained through Bureau of the Census classifications.

The analysis in the preceding section on sex, race, and age indicated that symptom response rates were not uniform for these three variables. There are also known variations in sex, race, and age with demographic factors. Because of these variations the focus of attention of this section of the study was to determine what general symptom patterns and which specific symptoms were associated with specific aspects of each of the demographic variables within the four sex-race groups with age statistically controlled. The data upon which these analyses are based are contained in tables 15-23. The statistical level of significance used to indicate a significant variation in a given symptom rate for the four groups compared with what could be expected with age-adjusted rates within each sex-race group was set at 1.96 standard errors ($p=.05$ level) of the deviation of the actual from the age-adjusted expected rate, with a minimum of 20 cases in the sample for the given aspect of the demographic variable. Statements of trends for demographic variables are based upon the binomial probability ($p=.05$)¹² among the 12 symptoms of being higher or lower than the age-adjusted expected rate within given sex-race groups. A symptom trend or consistency refers to uniformity in direction across the four sex-race groups. It must be noted that in some cases the number of individuals reporting was so small that doubt can be raised about the reliability of the findings of certain trends.

Education

A definite trend of higher symptom rates than expected occurred for the less educated compared with the more educated groups. Forty-one of the 48 rates for those with less than 5 years of education were higher than expected, while 31 of the 48 rates for those with 13 years or more of education were lower than expected. This trend was also apparent among the statistically significant rates in that for the less than 5 years educational groups there were eight high rates versus two low rates, while those with 13 years or more had nine low rates and three high rates.

Table D. Symptom rates by sex, sex and age, and sex and race

Symptom and sex	Total, 18-79 years	Age							Race	
		18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-79 years	White	Negro
<u>Nervous breakdown</u>										
Male-----	3.2	1.3	1.8	3.5	3.0	5.4	5.4	1.5	3.2	2.8
Female-----	6.4	1.0	3.6	5.0	7.3	12.7	10.7	13.1	6.0	10.4
<u>Felt impending nervous breakdown</u>										
Male-----	7.7	6.9	7.4	8.6	11.7	6.4	3.1	2.2	7.7	8.2
Female-----	17.5	14.6	21.6	19.3	18.8	14.5	13.8	10.2	17.8	16.1
<u>Nervousness</u>										
Male-----	45.1	43.5	47.5	51.9	48.1	37.7	36.6	30.2	47.2	31.3
Female-----	70.6	61.4	74.4	75.0	72.5	72.6	62.9	65.6	73.2	55.2
<u>Inertia</u>										
Male-----	16.8	17.2	16.1	17.6	16.3	16.9	18.2	12.1	16.9	17.1
Female-----	32.5	31.0	34.0	35.2	31.1	29.7	31.9	35.6	33.1	29.5
<u>Insomnia</u>										
Male-----	23.5	20.4	16.7	20.8	26.8	27.0	35.9	26.5	24.1	20.4
Female-----	40.4	28.0	33.5	33.7	42.8	53.8	59.0	51.0	40.9	38.9
<u>Trembling hands</u>										
Male-----	7.0	7.6	6.5	5.4	5.7	8.8	10.0	8.5	6.9	7.1
Female-----	10.9	10.4	12.2	12.1	10.6	9.3	9.2	13.0	10.6	12.3
<u>Nightmares</u>										
Male-----	7.6	5.7	9.4	7.7	7.7	8.2	5.8	6.5	6.9	13.0
Female-----	12.4	12.8	15.8	14.7	9.9	7.5	11.6	11.8	12.3	14.3
<u>Perspiring hands</u>										
Male-----	17.0	23.2	24.9	17.7	14.7	11.0	7.9	3.0	17.0	16.8
Female-----	21.4	28.6	27.7	24.2	19.6	15.0	9.2	5.9	22.2	16.0
<u>Fainting</u>										
Male-----	16.9	17.6	15.7	15.7	18.1	17.3	17.8	17.2	17.5	13.8
Female-----	29.1	28.5	33.2	29.9	27.0	26.2	29.7	24.8	30.4	20.5
<u>Headaches</u>										
Male-----	13.7	13.0	12.8	13.8	15.2	15.6	11.3	10.0	13.8	11.9
Female-----	27.8	24.0	31.6	29.6	29.5	25.9	24.2	19.3	27.5	30.9
<u>Dizziness</u>										
Male-----	7.1	6.3	3.0	5.0	7.6	10.7	12.8	14.3	6.9	9.2
Female-----	10.9	8.4	9.5	8.5	10.1	14.3	16.9	16.6	10.3	15.7
<u>Heart palpitations</u>										
Male-----	3.7	3.3	2.0	2.1	3.9	7.2	6.4	1.5	3.6	4.8
Female-----	5.8	1.7	3.1	4.7	6.2	9.7	10.4	14.8	5.7	6.4
<u>SCALE MEAN VALUE¹</u>										
<u>Male</u>										
White-----	1.70	1.72	1.70	1.72	1.78	1.69	1.66	1.19	1.70	...
Negro-----	1.55	1.25	1.03	1.37	1.79	1.87	2.23	2.99	...	1.55
<u>Female</u>										
White-----	2.88	2.61	3.07	2.93	2.89	2.86	2.82	2.80	2.88	...
Negro-----	2.65	1.91	2.61	2.60	2.52	3.27	3.79	2.62	...	2.65

¹Scale is from 0 to 11; see text, page 7.

Nervousness was the only symptom that showed a counter pattern in that the less educated had lower rates for nervousness than did the more educated.

Higher symptom rates with less education were consistent across sex and race for nervous breakdown, headaches, palpitating heart, inertia, dizziness, and trembling hands.

Fainting showed an interesting pattern in that the lowest and highest educated groups had higher rates than expected.

Headaches, dizziness, and nervousness were the symptoms with the greatest number of statistically significant variations with education.

Income

There was a general trend for higher symptom rates with lower income. Higher than expected symptom rates occurred among the less than \$2,000 income group for white and Negro men and white women, with 33 out of the 36 comparisons being high. All nine significant symptom rates for these three groups with less than \$2,000 income were also high. Negro women did not manifest this pattern. Among white men and women with incomes of \$10,000 and over, 19 of the 24 symptom rates were lower than expected.

There was a fairly consistent pattern across the four sex and race groups of higher symptom rates with lower income for inertia, headaches, and dizziness. Among white men and women, higher rates with lower income for nervous breakdown and heart palpitations tended to occur. Nervousness showed a reverse pattern with lower symptom rates tending to occur with lower income.

A reverse pattern for fainting occurred between the sexes wherein males with low income and females with higher incomes had higher rates.

The symptoms with the greatest number of significant rates were dizziness, headaches, trembling hands, heart palpitations, and nervousness.

Marital Status

The never married groups tended to have lower symptom rates than any other group with 32 of the 48 symptom rates lower than expected. They were consistently low on nervousness, fear of having a nervous breakdown, and dizziness. In

contrast, the separated groups tended to have higher symptom rates with 33 of the 48 symptom rates higher than expected. The most striking pattern was among white women who were never married wherein 11 of the 12 symptom rates were low, with six significantly low.

Usual Activity Status

Usual activity status was designated as usually working, usually keeping house, retired, or "other." Of particular note were the symptom patterns between working and retired men, and between working women and those keeping house among white women. White and Negro men who were retired had higher than expected rates for 20 of the 24 symptoms while their working cohorts had low rates for 21 of the 24 symptoms. White women who were keeping house had higher rates than expected for 11 of the 12 symptoms while their working counterparts had lower rates than expected for 11 of the 12 symptoms. Negro women did not show a systematic pattern.

Symptoms which most differentiated working versus retired men were high rates for the latter on nightmares, hand trembling, inertia, feeling of an impending nervous breakdown, and heart palpitations. Among white women, what might be termed the "housewife syndrome" appeared between housekeepers and their working cohorts. Housekeepers compared with working women had higher symptom rates for fainting, hand trembling, inertia, nervous breakdown, heart palpitations, and dizziness.

Occupation

Significant symptom rates were particularly noteworthy across occupations for white men and women with 23 of the 29 significant rates occurring in these two groups. The few significant rates for Negro men and women may simply reflect the fact that the groups were too small to result in significant findings. The symptoms with the greatest number of significant rates were nervousness and headaches.

Symptom patterns by occupation appear to differ somewhat from what might commonly be supposed. Thus professional, clerical, and operative occupations tended to have lower symptom rates,

while farmers and farm managers, and private household and service workers tended to have higher rates.

Industry

Seventeen of the 25 significant rates among the eight industry classifications occurred among men. The agriculture, forestry, and fisheries industry grouping had the greatest number of significant symptom rates, 10, of which eight were high, with Negro men having five significantly high symptom rates. Higher-than-expected rates for dizziness were common across all four groups for this industry category.

Geographic Region

Adults in the Northeast generally had lower rates while their counterparts in the South generally had higher rates. White men and women had generally high rates in the South, with 20 of the 24 rates being higher than expected. White women in the Northeast had lower than expected rates for 11 of the 12 symptoms. The symptoms with the greatest number of significant rates by region were nervousness, trembling hands, and headaches. The Northeast examinees had consistently lower rates than expected for trembling hands, fainting, and heart palpitations. Examinees in the South had consistently high rates for trembling hands and headaches.

Population Size

Among the 32 symptom rates that were significant, metropolitan areas had lower rates (19 low, two high) while the other urban and rural areas had higher rates (two low, nine high). Among white men and women in the giant metropolitan areas, 22 of the 24 symptom rates were lower than expected while in the other urban areas 22 of the 24 symptom rates were higher than expected. Among white women in the rural areas 11 of the 12 symptom rates were higher than expected.

Place Description

Twenty-four of the 29 significant rates occurred among white men and women; however, Negro and white persons showed similar trends.

Among the significant symptom rates, the examinees in the metropolitan areas were characterized by low rates (10 low, one high), while the urban-not in SMSA and rural areas had high rates (two low, 16 high). The general trend was also for the SMSA areas to have lower symptom rates while the urban-not in SMSA and rural areas had higher rates than expected.

DEMOGRAPHIC CHARACTERISTICS OF EACH SYMPTOM

The two previous sections presented findings at a general level for the 12 demographic variables. This section presents the findings for each of the 12 symptoms with respect to the demographic variables.

Reported Nervous Breakdown

On the basis of the survey findings it is estimated that of the 111 million adults in the United States aged 18-79 years in 1960-62, 5.4 million, almost 5 percent, have experienced an emotional crisis of such severity as to consider it a "nervous breakdown" (table 2).

In both the white and Negro populations proportionately more women than men reported nervous breakdowns. Six percent of the women but only 3 percent of the men reported this type of emotional crisis.

Among white women there was a strong trend toward increased reporting of this condition with increasing age. At ages 18-24 years less than one white woman per 100 reported having had a nervous breakdown while 12 women per 100 aged 75-79 years stated that they had experienced such an emotional crisis. There was a similar but somewhat less steep increase (1 to 5 percent) in the reporting of nervous breakdowns by age for white men (table 2).

Negro women had a significantly higher rate of reporting nervous breakdowns than white women while no significant difference was found between the rate for white and Negro men. In the Negro population the reporting of an emotional crisis of this severity also increased with age (table 2).

There was a clear trend for higher rates of having had a nervous breakdown with lower education and a slight trend with lower income.

Rates were lower among the professional, technical, and managerial occupation group and for residents of very large metropolitan areas other than the giant metropolitan areas.

Feelings of an Impending Nervous Breakdown

Another 14.2 million adults, almost 13 percent, reported having felt that they were going to have a nervous breakdown without its actual occurrence. This group included all people who had answered affirmatively to the question "Have you ever felt you were going to have a nervous breakdown?" and who also had a negative history of actually having had a nervous breakdown.

Women reported that they had at times felt that they were going to have a nervous breakdown approximately twice as frequently as did men (table 3). This was true for both the white and Negro population.

The percentage of women reporting feelings of an impending nervous breakdown rose sharply between the age groups 18-24 and 25-34 years, and then tended to decrease with increasing age. This decrease may be a result of the increasing rate reporting the occurrence of a nervous breakdown. Reporting of such feelings among men increased gradually with age up to 45-54 years, then decreased to ages 75-79.

Overall within sex neither white and Negro men nor white and Negro women differed significantly in reporting this condition. However in the 25-34-year age group significantly more white men and women reported this condition than Negro men and women. Also in the 65-74-year age group the reporting of this condition was significantly higher for Negro women than for white women (table 3).

The lowest income (under \$2,000) group had higher rates and the never married group had lower rates than expected.

Some idea of what problems people have in mind when they use the phrase "felt that they were going to have a nervous breakdown" is provided by data from the Joint Commission's Home Survey mentioned previously. Respondents in that study were asked whether they had ever felt they were going to have a nervous breakdown. If the respondent answered affirmatively he was asked to further describe the situation and his

feelings at the time. Results of that study indicated that a nervous breakdown tends to be defined in several ways: 16 percent of the people defined a nervous breakdown as an extreme emotional reaction to ill health in someone close to them or to some externally induced separation (e.g., separation when husband was in the army); 14 percent defined it in terms of the strain from overwork and other job and business tensions; 9 percent described it as an individual breakdown in the face of deteriorating financial or other conditions. Eighteen percent of the individuals defined their nervous breakdowns as a reaction to their own physical illness or disability, and 18 percent mentioned personality problems and general tensions. Interpersonal problems (in marriage, with children, etc.) were mentioned by 16 percent, and problems centering about the menopause were mentioned by 4 percent.⁵

Nervousness

Feelings of "nervousness" and tension were reported more often than any of the other conditions (table 4). Among women 71 out of every 100 expressed this complaint, while 45 out of every 100 men did so.

The rate of nervousness rose for both men and women up to ages 35-44, then steadily decreased with increasing age (table 4).

Both race and sex differences were pronounced for this condition. Women of both races reported more nervousness at every age level than did men, while white men and women expressed it at every age level more often than Negro men and women. There was a fairly consistent trend for higher rates of nervousness to be reported by higher educated and higher income groups compared with the lower educated and lower income groups. Lower rates than expected were reported by the never married marital status groups.

Psychological Inertia

A form of psychological inertia or immobilization was expressed by about 25 percent of the persons examined (table 5).

White women reported this complaint more frequently than did white men in every age group

and Negro women more often than Negro men for all age groups except one, 65-74 years. The proportion of examinees having this condition remained fairly stable by age for all age-sex groups (table 5).

White men and women expressed this symptom more often than Negro men and women until ages 55-64, after which the reverse was true. However there was no overall significant difference by race. The rate for Negro men tended to increase after ages 25-34. Rates were higher for the less well educated and lower income groups, while rates were lower for working groups and among the professional, technical, and managerial occupational groups.

Insomnia

About 32 percent of the examinees reported that they sometimes had difficulty getting to sleep or staying asleep (table 6).

Race differences were less pronounced than were age and sex differences. Women of both races exhibited similar age distributions and reported more insomnia at every age level than did men. There was a strong trend toward increased sleep difficulties with increasing age for women and a similar but somewhat weaker trend for men.

White men aged 18-24 reported significantly more sleeping difficulties than did Negro men of the same ages. For all other age-sex-race groups there were no statistically significant differences between the white and Negro populations. Rates for insomnia were lower among working groups than for the remaining usual activity categories.

Hand Trembling

Nine of every 100 persons examined reported that their hands sometimes trembled enough to bother them (table 7).

Complaints of hand trembling did not differ significantly between races. In the white population there did not appear to be any significant changes with age, but among Negroes of both sexes the rate tended to increase with advancing age (table 7).

Women reported this significantly more often than men. Indeed white women had a higher rate than white men in all age groups except 65-74

years, while Negro women had higher rates than Negro men at every age level.

Rates were higher among the lower educated, residents of the South, and residents of nonmetropolitan urban areas. Rates were lower among working groups, the operative occupation, residents of the Northeast, residents of giant and other very large metropolitan areas, and central city SMSA residents.

Nightmares

Approximately 10 of every 100 individuals reported that they were sometimes bothered by nightmares. White women expressed this complaint almost twice as often as did white men, while the rates for Negro women approximated that of Negro men. A noteworthy finding is that the rate of nightmares for Negro men approximately equals the rates for females of both races (table 8). No apparent trends occurred for this symptom for any of the other demographic variables.

Perspiring Hands

In the white population the proportion of examinees reporting excessively perspiring hands tended to decrease sharply with increasing age, suggesting a physiological component. In the youngest age group 18-24, 31 percent of white women and 24 percent of white men reported experiencing this condition, while at ages 75-79 two men per 100 and approximately four women per 100 affirmed this complaint. This steady drop did not occur among Negro men and women (table 9).

White women reported this symptom significantly more frequently than did white men. In the Negro population there were no significant differences between men and women. Both Negro men and women had lower rates than white men and women until ages 45-54 years, after which they had higher rates. There was no significant difference between the overall rates for white and Negro men, but white women reported this complaint significantly more often than Negro women (table 9).

Higher rates for being troubled with perspiring hands occurred in the lowest income (under \$2,000) groups, and for residents of nonmetropolitan urban areas.

Fainting

Approximately 29 percent of the women and 17 percent of the men reported that they had sometimes fainted or blacked out. White women expressed this complaint more often than did Negro women (table 10).

Among white persons, women reported this condition more often than did men at every age level (table 10). In the Negro population women claimed this symptom more often than men at every age level except 45-54 years. Higher rates for fainting occurred at the lowest and highest educational levels, among the lower income men and higher income women, and among residents in the West. Lower rates occurred among working groups, the operative occupation, and residents in the Northeast.

Headaches

Because the responses to the items dealing with headaches, dizziness, and heart palpitations involved information on frequency and intensity of the condition, the coding of responses was carried out differently than that used with the "yes," "no," or "?" alternatives. If the examinee reported that he had experienced the condition, and that its occurrence was frequent or its intensity was quite strong, the response was coded as an affirmative response.

As coded above, complaints of frequent and/or severe headaches were expressed by about 21 percent of the persons examined. White and Negro persons reported this condition in about equal frequencies (table 11).

At every age level, women of both races complained of headaches more often than did men. About 28 percent of the examined women expressed this complaint, while about 14 percent of the men did so.

There was no clear trend with age for white men and women, or Negro women, but there seemed to be a trend for Negro men toward more headaches with increasing age. Headaches were more frequently reported among the lower educated and lower income groups, private household and service workers, residents of the South, residents of nonmetropolitan urban areas, and res-

idents of rural farm and rural nonfarm areas. Lower rates were reported by the professional, technical, and managerial occupational groups, workers in wholesale and retail trades, residents in giant and other very large metropolitan areas, and in central city SMSA's.

Dizziness

Frequent and/or severe spells of dizziness were reported by about 7 percent of the men and 11 percent of the women. Women of both races exhibited higher rates than men at every age level (table 12). Negro men and women expressed this condition more often than did white men and women.

In general, older individuals tended to complain of spells of dizziness more often than did younger persons, with marked increases after age 45 in all race-sex groups. Rates for dizziness were higher among the lower educated and lower income groups, the agriculture, forestry and fisheries industry, and in the urban nonmetropolitan and rural areas. Lower rates occurred among the never married, working groups, and in residents of the metropolitan areas.

Heart Palpitations

About 5 percent of the individuals examined reported that they were bothered either frequently and/or severely by their hearts "beating hard." White women claimed this symptom significantly more often than did white men (table 13).

There did not appear to be any significant race differences in this condition since white and Negro adults of the same sex reported heart palpitations in similar frequencies.

Age was related to the reporting of this complaint. In general individuals aged 45 and over tended to report this complaint more often than those under 45.

Symptom rates for heart palpitations were higher among lower educated groups, and among urban nonmetropolitan and rural residents. Lower rates occurred among the never married, working groups, residents of the Northeast, residents of giant metropolitan areas, and residents of SMSA's outside the central city.

SYMPTOM DIFFERENCES BY RACE WITHIN SEX AND DEMOGRAPHIC VARIABLES

The purpose of the analysis in this section was to determine if overall race differences in symptom rates could be attributable to differences in race distributions by the various demographic variables. Age-adjusted rates revealed eight significant differences in symptom rates by race within sex. Among males white men had higher rates for nervousness and fainting while Negro men had a higher rate for nightmares. Among females white women had higher rates for nervousness, fainting, and perspiring hands, while Negro women had higher rates for nervous breakdowns and dizziness. Statistical tests were performed to determine the significance of the differences in rates by race within sex for each of the above symptoms for each category within each of the nine selected demographic variables with age controlled. Consistency of trends across demographic categories were also considered in the analysis. The higher rates within sex for nightmares among Negro men and for nervous breakdown and dizziness among Negro women appear to be mostly attributable to income differences since no significant differences were obtained and no consistent race trend appeared within income levels for these symptoms. The higher rates within sex among white men or women for nervousness, fainting, and perspiring hands were significantly higher and/or consistently higher within all the demographic variables and hence are considered as not being directly attributable to any of these nine variables.

NERVOUS BREAKDOWN BY SEX, AGE, AND EDUCATION

The purpose of the analysis in this section was to determine the joint relationships of sex, age, and education with having had a nervous breakdown. The prevalence rates and estimated numbers of adults in the U.S. population reporting having had or who had felt that they were going to have a nervous breakdown are shown in tables 2 and 3 by sex, race, and age. When the rates reported in this survey for nervous breakdown or feeling of an impending

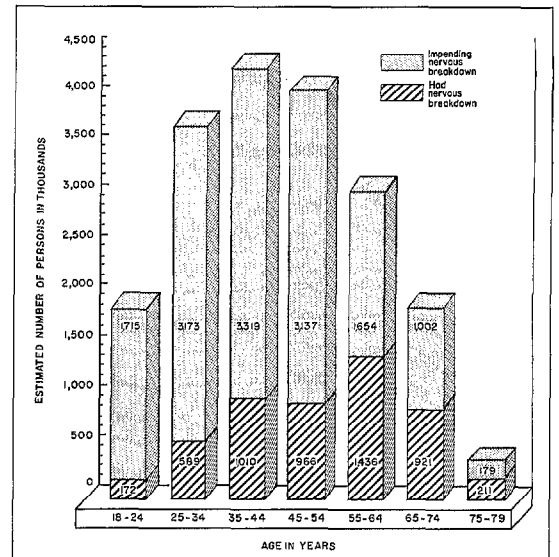


Figure 1. Prevalence of having a nervous breakdown or of having felt an impending nervous breakdown for adults 18-79 years of age.

ing nervous breakdown are applied to the U.S. population, approximately 5.4 million would consider that they have suffered psychological distress of sufficient severity to feel that they have had a nervous breakdown and another 14.2 million that they have felt at some times in their lives that they were going to have a nervous breakdown. The reported rates for having had a nervous breakdown were higher among females than males, and increased with age. The population estimates of having had a nervous breakdown are shown in figure 1 by age and the rates are shown by sex and age in table D. Rates for nervous breakdown by educational level show a definite trend with the less well educated, particularly under 9 years, having higher rates as shown in table E. Because of the low rate among males and the curvilinear relationship of education with age in the U.S. adult population, development of an equation showing the joint functional relationships of nervous breakdown with sex, age, and education was not feasible even in this large a sample. However, by combining educational groups into two levels and combining the age groups 55-79 years into one group, a general trend of the joint relationships of these three variables with nervous breakdown can be observed as

Table E. Percent reporting having had a nervous breakdown, by sex and educational level

Sex	Educational level				
	Total	Under 5 years	5-8 years	9-12 years	13+ years
Both sexes-----	4.87	8.36	7.36	3.68	3.02
Male-----	3.16	5.58	4.01	2.43	2.50
Female-----	6.42	10.97	10.70	4.65	3.60

shown in table F and fig. 2. For males and females combined a clear pattern of higher rates of reported nervous breakdown for the less well educated in all age groups is evident. This pattern is clearly apparent among the females and to a limited extent among the males even with the instability of rates engendered by the low frequency of nervous breakdown within each of 10 data points for males.

SUMMARY AND DISCUSSION

The primary purpose of this study was to investigate the relationships of sex, age, and race

plus nine other selected demographic variables with 12 symptoms of psychological distress. The findings were derived from a nationwide Health Examination Survey conducted from 1960-62 on 6,672 examinees representing U.S. adults 18-79 years of age. For the selected demographic variables each symptom rate was compared with the within sex and race age-adjusted expected rate and the difference was evaluated for statistical significance. Additional findings are also reported on topics that were considered relevant to this study.

The most evident differences occurred with sex and age. Women had higher rates than men for all 12 symptoms. While seven of the symptoms

Table F. Joint relationships of sex, age, and educational level with percent reporting a nervous breakdown

Sex and educational level	All ages, 18-79 years	18-24 years	25-34 years	35-44 years	45-54 years	55-79 years
<u>Both sexes</u>						
Under 9 years-----	7.57	2.52	3.37	5.84	7.25	9.90
9 years and over-----	3.50	0.91	2.64	3.67	4.03	6.86
<u>Male</u>						
Under 9 years-----	4.34	3.26	1.36	3.71	4.52	5.20
9 years and over-----	2.46	0.95	1.87	3.40	1.86	4.40
<u>Female</u>						
Under 9 years-----	10.76	1.79	4.95	8.04	10.04	14.62
9 years and over-----	4.40	0.87	3.35	3.90	6.01	8.68

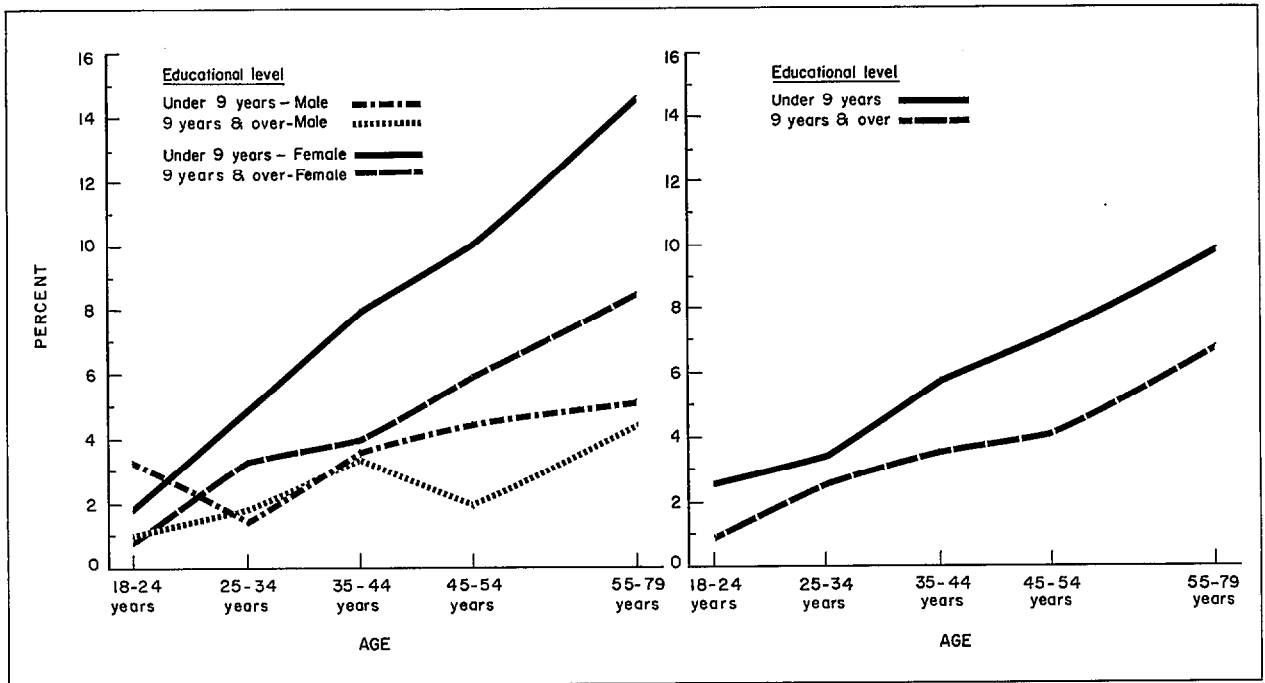


Figure 2. Percent reporting nervous breakdown by sex, age, and education.

were significantly correlated with age, the pattern of these relationships was complex. Four symptom rates generally rose with age while three rates were curvilinear with age with higher rates in the middle-aged groups. One symptom, perspiring hands, decreased with age among white persons but had no age rate differences among Negroes. When sex, age, and income are considered there were only three significant symptom differences between white and Negro persons. White persons had higher symptom rates for nervousness, fainting, and perspiring hands than did Negroes.

Among the other selected demographic variables symptom rates generally were:

Higher among the lower educated and lower income groups.

Lower among the never married and higher among the separated than other marital status groups.

Lower among working men and women compared with retired men and women who were housekeepers.

Lower among professional, clerical, and operative occupations while higher among farmers and farm managers, and private household and service workers.

Higher among the agriculture, forestry, and fisheries industry than among the other seven industry groups.

Lower in the Northeast and higher in the South among the three geographical regions.

Lower in metropolitan areas and higher in the other urban and the rural areas for both population size and place description demographic classifications.

While a number of significant variations or trends in symptom rates occurred in the other selected demographic variables within sex and race with age statistically controlled as indicated above, none appeared to be of such a magnitude as to indicate a strong degree of association or functional relationship. Had education been included as an additional control or moderator variable with sex and age most of these variations would probably not have been significant.

When the individual symptom trends are studied across demographic variables the overall pattern is very similar to that revealed in the analysis by demographic variables except for nervousness and fainting. Symptom rates for nervousness had a definite reverse trend with education and income compared with the trend of the other symptoms. The higher educated and income groups reported higher rates of nervousness than did the lower educated and income groups. Higher rates for fainting occurred at the lowest and highest educational levels, among the lower income men and higher income women, and residents of the West.

A special analysis of the joint relationships of the three factors of sex, age, and education with having had a nervous breakdown provided evidence that the joint relationships reflect a cumulative contribution of each factor with nervous breakdown. The highest rate (14.6 percent) for nervous breakdown occurred among older, lower educated women and the lowest rate (0.9 percent) was for younger, higher educated men and women.

Proper interpretation of the data presented herein necessitates the statement of a few caveats. The fact that an examinee responds in an affirmative manner to an item on a symptom checklist cannot in itself be taken as reliable evidence of mental distress, and no attempt was made to classify individuals as well or impaired on the basis of these self-reported complaints. The emphasis in this report was on comparative findings rather than on absolute figures of impairment in the population.

Further, because the data were gathered by means of a self-report technique, they must be viewed as a reflection of what individuals are willing to state about themselves in the setting of a medical clinic, and as such may be affected by a social desirability bias, i.e., a cultural difference in the willingness to admit certain symptoms or weakness about one's self. Efforts were made to minimize the effects of this factor, e.g. the guarantee of confidentiality of results, the medical setting of the examination, the reinforcement of the idea that such items are within the domain of a health survey, etc., but the possibility that this factor may have contributed to some of the age, race, sex, or other differences found in demographic characteristics must be considered.

Moreover at least four of the symptoms (headaches, dizziness, fainting, and heart palpitations) owe their origin in many cases to factors other than those strictly psychological in nature. Any differentials found for these symptoms may be partially or wholly the result of differentials in organic pathology. For example, increased rates for postural hypotension in the elderly may account for part of the high rates for dizziness in the older age group.

Discussions of the problems of validity and methodology in mental health surveys, and comparability of findings from different surveys have been reported in the literature (cf. Leighton, et al., 1963;¹⁰ Plunkett and Gordon, 1960;¹³ the Dohrenwends, 1965;¹⁴ Hoch and Zubin, 1961;¹⁵ Zubin, 1961;¹⁶ and a number of others). In general these studies have differed from the Health Examination Survey in purpose, methodology, and population selection. The Joint Commission Home Survey shares a few points of similarity with HES mental health data (selection of items, a symptom checklist, sample of the U.S. adult population), though the symptom items were analyzed essentially differently from HES data.⁵ In that study also, consistent sex differences were found in reported somatic symptomatology, with women reporting symptoms more often than men. Their reported rates of 12 percent for males and 25 percent for females compare almost exactly with the combined rates for nervous breakdown and impending nervous breakdown in this study of 10.9 percent and 23.9 percent for males and females respectively. A curvilinear trend with age, and an inverse trend with education was also similar for both studies on this symptom. Race differences in reported symptoms were not considered in the Joint Commission monograph.

Beyond this it is not feasible to make a direct comparison between the findings in this study and other studies of psychiatric or psychological disturbance or distress such as Crandell and Dohrenwend,⁷ Srole, et al.,⁸ Dohrenwend and Dohrenwend,¹⁴ Kramer,¹⁷ and Jaco.¹⁸ However, certain general similarities or differences in findings seem relevant.

Sex differences, with females reporting higher symptom rates, were clearly evident in this study as has generally been reported in the past. While age differences by symptoms were clearly appar-

ent in this study they were extremely complex which may be indicative of the reason for diverse findings usually reported for age. The finding that the never married in this study tended to have lower symptom rates than the other marital status groups is contrary to other findings and was unexpected. Since this pattern also remains generally consistent for each of the age groups the use of age-adjusted comparisons does not account for the difference in these findings from other studies.

The findings that symptom rates were generally higher among the lower education and income groups is consistent with other investigators' findings of higher rates among lower socioeconomic groups when classified along similar variables. The lower education-income groups also tended to report higher rates for the more physiological symptoms such as fainting, dizziness, headaches, and heart palpitations which is consistent with

other findings. However, except for nervousness, the lower education-income groups also tended to report slightly higher rates on the more psychological symptoms such as inertia, feeling of an impending nervous breakdown, insomnia, and nightmares. Thus these findings indicate some socioeconomic rate differences in self-reports of symptoms of psychological distress but only slight support for differential symptom rate patterns for socioeconomic groups. However, these differences by education-income, when viewed with sex, age, and race differences suggest that if scales composed of self-report symptoms are to be used as indicators of psychological distress then serious consideration should be given to development of differential scoring weights for each symptom or differential scale values among groups along these variables.

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Table 1. Number of examined persons and population estimates, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	Other	All races	White	Negro	Other
<u>Both sexes</u>	Number of examined persons				Population estimates in thousands			
Total, 18-79 years-----	6,672	5,719	827	126	110,750	97,436	11,385	1,928
<u>Men</u>								
Total, 18-79 years-----	3,091	2,669	358	64	52,644	46,478	5,177	987
18-24 years-----	411	351	51	9	7,115	6,241	738	135
25-34 years-----	675	579	71	25	10,266	8,984	902	379
35-44 years-----	703	604	84	15	11,345	9,928	1,184	231
45-54 years-----	547	476	64	7	10,017	8,766	1,130	120
55-64 years-----	418	356	54	8	7,517	6,659	736	120
65-74 years-----	265	238	27	-	4,955	4,573	382	-
75-79 years-----	72	65	7	-	1,427	1,325	102	-
<u>Women</u>								
Total, 18-79 years-----	3,581	3,050	469	62	58,106	50,957	6,208	940
18-24 years-----	534	439	79	16	8,395	7,196	966	233
25-34 years-----	746	622	105	19	11,254	9,619	1,370	264
35-44 years-----	784	670	101	13	12,281	10,678	1,390	212
45-54 years-----	705	601	98	6	10,513	9,257	1,162	93
55-64 years-----	443	392	47	4	8,107	7,320	731	55
65-74 years-----	299	267	30	2	6,110	5,613	456	40
75-79 years-----	70	59	9	2	1,443	1,271	131	40

Table 2. Prevalence of reported nervous breakdowns, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	5,404	4,566	791	4.9	4.7	6.9
<u>Men</u>						
Total, 18-79 years-----	1,669	1,508	147	3.2	3.2	2.8
18-24 years-----	90	90	-	1.3	1.4	-
25-34 years-----	181	181	-	1.8	2.0	-
35-44 years-----	400	365	21	3.5	3.7	1.8
45-54 years-----	303	261	42	3.0	3.0	3.7
55-64 years-----	404	373	31	5.4	5.6	4.2
65-74 years-----	269	238	31	5.4	5.2	8.2
75-79 years-----	22	-	*	1.5	-	*
<u>Women</u>						
Total, 18-79 years-----	3,736	3,059	644	6.4	6.0	10.4
18-24 years-----	82	48	34	1.0	0.7	3.5
25-34 years-----	408	314	93	3.6	3.3	6.8
35-44 years-----	610	485	113	5.0	4.5	8.1
45-54 years-----	763	657	107	7.3	7.1	9.2
55-64 years-----	1,032	853	179	12.7	11.6	24.4
65-74 years-----	652	544	107	10.7	9.7	23.5
75-79 years-----	189	157	*	13.1	12.3	*

Table 3. Prevalence of reported feelings of an impending nervous breakdown,¹ by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	14,177	12,589	1,423	12.8	13.0	12.5
<u>Men</u>						
Total, 18-79 years-----	4,058	3,591	423	7.7	7.7	8.2
18-24 years-----	493	434	47	6.9	6.9	6.5
25-34 years-----	760	725	35	7.4	8.1	3.9
35-44 years-----	972	862	79	8.6	8.7	6.6
45-54 years-----	1,168	999	169	11.7	11.4	15.0
55-64 years-----	481	398	83	6.4	6.0	11.2
65-74 years-----	153	153	-	3.1	3.4	-
75-79 years-----	32	21	*	2.2	1.6	-
<u>Women</u>						
Total, 18-79 years-----	10,120	8,997	1,000	17.5	17.8	16.1
18-24 years-----	1,222	1,078	116	14.6	15.1	12.0
25-34 years-----	2,413	2,192	189	21.6	23.0	13.9
35-44 years-----	2,347	2,042	271	19.3	19.4	19.5
45-54 years-----	1,969	1,756	213	18.8	19.0	18.4
55-64 years-----	1,173	1,077	69	14.5	14.8	9.4
65-74 years-----	849	738	111	13.8	13.0	23.8
75-79 years-----	147	115	*	10.2	9.1	*

¹Excludes those stating they had had a nervous breakdown.

Table 4. Prevalence of reported feelings of nervousness, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	64,703	59,136	5,044	58.5	60.8	44.3
<u>Men</u>						
Total, 18-79 years-----	23,648	21,822	1,619	45.1	47.2	31.3
18-24 years-----	3,086	2,866	221	43.5	46.0	29.9
25-34 years-----	4,880	4,549	227	47.5	50.5	25.1
35-44 years-----	5,852	5,337	443	51.9	54.1	37.4
45-54 years-----	4,780	4,362	400	48.1	50.2	35.7
55-64 years-----	2,822	2,622	188	37.7	39.6	25.5
65-74 years-----	1,803	1,703	100	36.6	37.4	26.1
75-79 years-----	425	384	*	30.2	29.4	*
<u>Women</u>						
Total, 18-79 years-----	41,055	37,314	3,424	70.6	73.2	55.2
18-24 years-----	5,174	4,723	375	61.4	65.3	38.8
25-34 years-----	8,358	7,464	809	74.4	77.6	59.6
35-44 years-----	9,186	8,303	808	75.0	78.0	58.1
45-54 years-----	7,619	6,929	642	72.5	74.9	55.3
55-64 years-----	5,876	5,452	412	72.6	74.7	56.3
65-74 years-----	3,895	3,604	292	62.9	63.4	62.4
75-79 years-----	947	840	*	65.6	66.0	*

Table 5. Prevalence of reported inertia, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	27,672	24,660	2,706	25.1	25.4	23.8
<u>Men</u>						
Total, 18-79 years-----	8,808	7,805	886	16.8	16.9	17.1
18-24 years-----	1,213	1,032	169	17.2	16.6	22.8
25-34 years-----	1,654	1,556	50	16.1	17.3	5.6
35-44 years-----	1,976	1,808	136	17.6	18.4	11.5
45-54 years-----	1,626	1,460	165	16.3	16.8	14.4
55-64 years-----	1,267	1,072	169	16.9	16.1	22.9
65-74 years-----	903	747	156	18.2	16.3	40.7
75-79 years-----	170	129	*	12.1	9.9	*
<u>Women</u>						
Total, 18-79 years-----	18,864	16,855	1,821	32.5	33.1	29.5
18-24 years-----	2,607	2,334	233	31.0	32.4	24.4
25-34 years-----	3,814	3,355	405	34.0	35.0	29.5
35-44 years-----	4,303	3,802	443	35.2	35.8	32.3
45-54 years-----	3,264	2,990	238	31.1	32.4	20.5
55-64 years-----	2,398	2,093	305	29.7	28.8	41.7
65-74 years-----	1,963	1,788	175	31.9	31.6	38.7
75-79 years-----	514	493	*	35.6	38.8	*

Table 6. Prevalence of reported insomnia, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	35,862	32,036	3,476	32.4	32.9	30.5
<u>Men</u>						
Total, 18-79 years-----	12,389	11,177	1,054	23.5	24.1	20.4
18-24 years-----	1,454	1,392	61	20.4	22.3	8.3
25-34 years-----	1,714	1,557	105	16.7	17.3	11.9
35-44 years-----	2,366	2,116	173	20.8	21.2	14.6
45-54 years-----	2,675	2,297	362	26.8	26.4	31.5
55-64 years-----	2,028	1,811	203	27.0	27.2	27.5
65-74 years-----	1,776	1,666	110	35.9	36.5	28.6
75-79 years-----	378	339	*	26.5	25.5	*
<u>Women</u>						
Total, 18-79 years-----	23,473	20,858	2,422	40.4	40.9	40.0
18-24 years-----	2,349	2,080	240	28.0	28.9	24.9
25-34 years-----	3,778	3,257	493	33.5	33.8	36.0
35-44 years-----	4,120	3,573	469	33.7	33.6	33.8
45-54 years-----	4,497	4,039	446	42.8	43.6	38.4
55-64 years-----	4,337	3,903	408	53.8	53.6	55.7
65-74 years-----	3,655	3,364	290	59.0	59.2	62.1
75-79 years-----	736	641	*	51.0	50.4	*

Table 7. Prevalence of reported hand trembling, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	10,023	8,634	1,134	9.0	8.8	9.9
<u>Men</u>						
Total, 18-79 years-----	3,675	3,210	371	7.0	6.9	7.1
18-24 years-----	541	496	45	7.6	7.9	6.1
25-34 years-----	667	607	30	6.5	6.8	3.4
35-44 years-----	611	534	77	5.4	5.4	6.5
45-54 years-----	575	486	64	5.7	5.6	5.6
55-64 years-----	662	532	89	8.8	8.0	12.1
65-74 years-----	498	443	55	10.0	9.6	14.4
75-79 years-----	121	111	*	8.5	8.4	*
<u>Women</u>						
Total, 18-79 years-----	6,348	5,429	763	10.9	10.6	12.3
18-24 years-----	875	783	92	10.4	10.8	9.6
25-34 years-----	1,372	1,199	130	12.2	12.4	9.4
35-44 years-----	1,482	1,234	170	12.1	11.6	12.2
45-54 years-----	1,112	979	134	10.6	10.5	11.6
55-64 years-----	751	610	127	9.3	8.3	17.3
65-74 years-----	568	472	96	9.2	8.4	20.5
75-79 years-----	187	153	*	13.0	12.0	*

Table 8. Prevalence of reported nightmares, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	11,231	9,461	1,567	10.1	9.7	13.7
<u>Men</u>						
Total, 18-79 years-----	4,205	3,188	678	7.6	6.7	13.0
18-24 years-----	409	316	93	5.7	5.0	12.6
25-34 years-----	966	790	132	9.4	8.8	14.6
35-44 years-----	876	676	127	7.7	6.8	10.8
45-54 years-----	775	593	166	7.7	6.8	14.5
55-64 years-----	616	496	94	8.2	7.4	12.7
65-74 years-----	291	246	45	5.8	5.4	11.8
75-79 years-----	92	71	*	6.5	5.5	*
<u>Women</u>						
Total, 18-79 years-----	7,206	6,273	888	12.4	12.3	14.3
18-24 years-----	1,080	978	88	12.8	13.5	9.1
25-34 years-----	1,781	1,552	216	15.8	16.1	15.8
35-44 years-----	1,810	1,584	208	14.7	14.8	14.9
45-54 years-----	1,037	831	207	9.9	9.0	17.8
55-64 years-----	611	532	78	7.5	7.3	10.7
65-74 years-----	718	627	92	11.6	11.0	19.6
75-79 years-----	170	170	*	11.8	13.4	*

Table 9. Prevalence of reported perspiring hands, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	21,361	19,176	1,861	19.3	19.7	16.4
<u>Men</u>						
Total, 18-79 years-----	8,941	7,873	870	17.0	17.0	16.8
18-24 years-----	1,647	1,482	153	23.2	23.8	20.7
25-34 years-----	2,547	2,274	159	24.9	25.3	18.2
35-44 years-----	2,011	1,817	176	17.7	18.3	14.9
45-54 years-----	1,468	1,298	170	14.7	14.9	14.8
55-64 years-----	831	666	113	11.0	10.0	15.3
65-74 years-----	394	303	90	7.9	6.6	23.6
75-79 years-----	43	34	*	3.0	2.5	*
<u>Women</u>						
Total, 18-79 years-----	12,420	11,303	990	21.4	22.2	16.0
18-24 years-----	2,408	2,247	135	28.6	31.2	14.0
25-34 years-----	3,113	2,842	220	27.7	29.6	16.1
35-44 years-----	2,967	2,674	263	24.2	25.0	18.9
45-54 years-----	2,058	1,875	183	19.6	20.2	15.7
55-64 years-----	1,220	1,086	134	15.0	14.8	18.2
65-74 years-----	570	525	45	9.2	9.2	9.9
75-79 years-----	85	54	*	5.9	4.2	*

Table 10. Prevalence of reported fainting, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	25,897	23,616	1,987	23.3	24.2	17.4
<u>Men</u>						
Total, 18-79 years-----	8,900	8,124	714	16.9	17.5	13.8
18-24 years-----	1,253	1,236	17	17.6	19.8	2.3
25-34 years-----	1,612	1,491	109	15.7	16.6	12.0
35-44 years-----	1,786	1,611	157	15.7	16.2	13.5
45-54 years-----	1,820	1,608	195	18.1	18.3	17.0
55-64 years-----	1,298	1,138	147	17.3	17.1	19.9
65-74 years-----	884	856	28	17.8	18.7	7.2
75-79 years-----	246	185	*	17.2	13.9	*
<u>Women</u>						
Total, 18-79 years-----	16,947	15,492	1,273	29.1	30.4	20.5
18-24 years-----	2,400	2,192	180	28.5	30.4	18.6
25-34 years-----	3,730	3,453	216	33.2	36.0	15.8
35-44 years-----	3,680	3,363	270	29.9	31.4	19.4
45-54 years-----	2,846	2,642	187	27.0	28.5	16.1
55-64 years-----	2,120	1,873	218	26.2	25.6	29.8
65-74 years-----	1,814	1,633	180	29.7	29.1	38.6
75-79 years-----	358	335	*	24.8	26.4	*

Table 11. Prevalence of reported headaches, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	23,373	20,441	2,528	21.1	21.0	22.2
<u>Men</u>						
Total, 18-79 years-----	7,197	6,415	615	13.7	13.8	11.9
18-24 years-----	926	865	62	13.0	13.8	8.4
25-34 years-----	1,314	1,157	59	12.8	12.9	6.5
35-44 years-----	1,565	1,383	155	13.8	14.0	13.1
45-54 years-----	1,516	1,371	129	15.2	15.7	11.4
55-64 years-----	1,173	1,002	145	15.6	15.1	19.7
65-74 years-----	560	495	65	11.3	10.8	17.0
75-79 years-----	142	142	*	10.0	10.7	*
<u>Women</u>						
Total, 18-79 years-----	16,176	14,027	1,912	27.8	27.5	31.0
18-24 years-----	2,016	1,739	235	24.0	24.0	24.7
25-34 years-----	3,564	2,983	513	31.6	30.9	37.8
35-44 years-----	3,643	3,093	445	29.6	28.9	32.0
45-54 years-----	3,104	2,774	330	29.5	30.0	28.4
55-64 years-----	2,089	1,895	194	25.9	26.0	26.5
65-74 years-----	1,485	1,304	182	24.2	23.1	38.9
75-79 years-----	275	240	*	19.3	19.2	*

Table 12. Prevalence of reported dizziness, by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro
<u>Both sexes</u>	Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	10,011	8,438	1,439	9.1	8.7	12.7
<u>Men</u>						
Total, 18-79 years-----	3,725	3,201	471	7.1	6.9	9.2
18-24 years-----	451	407	44	6.3	6.5	6.0
25-34 years-----	309	277	32	3.0	3.1	3.6
35-44 years-----	565	494	53	5.0	5.0	4.4
45-54 years-----	762	630	108	7.6	7.2	9.5
55-64 years-----	799	710	77	10.7	10.7	10.9
65-74 years-----	635	530	105	12.8	11.5	27.5
75-79 years-----	205	153	*	14.3	11.6	*
<u>Women</u>						
Total, 18-79 years-----	6,286	5,237	968	10.9	10.3	15.7
18-24 years-----	705	581	110	8.4	8.1	11.6
25-34 years-----	1,064	837	227	9.5	8.7	16.6
35-44 years-----	1,039	865	128	8.5	8.1	9.2
45-54 years-----	1,059	899	159	10.1	9.7	14.1
55-64 years-----	1,159	996	162	14.3	13.6	22.2
65-74 years-----	1,024	878	146	16.9	15.9	31.2
75-79 years-----	236	180	*	16.6	14.4	*

Table 13. Prevalence of reported heart palpitations by race, sex, and age: United States, 1960-62

Sex and age	All races	White	Negro	All races	White	Negro	
<u>Both sexes</u>		Number of adults in thousands			Percent of adults		
Total, 18-79 years-----	5,273	4,540	642	4.8	4.7	5.6	
<u>Men</u>							
Total, 18-79 years-----	1,940	1,661	246	3.7	3.6	4.8	
18-24 years-----	234	217	17	3.3	3.5	2.3	
25-34 years-----	206	173	-	2.0	1.9	-	
35-44 years-----	235	204	31	2.1	2.1	2.6	
45-54 years-----	389	305	84	3.9	3.5	7.4	
55-64 years-----	539	494	45	7.2	7.4	6.1	
65-74 years-----	315	246	69	6.4	5.4	18.0	
75-79 years-----	21	21	*	1.5	1.6	*	
<u>Women</u>							
Total, 18-79 years-----	3,333	2,879	396	5.8	5.7	6.4	
18-24 years-----	140	133	7	1.7	1.8	0.8	
25-34 years-----	351	266	68	3.1	2.8	5.0	
35-44 years-----	571	492	38	4.7	4.6	2.7	
45-54 years-----	649	555	94	6.2	6.0	8.1	
55-64 years-----	775	663	111	9.7	9.2	15.5	
65-74 years-----	634	578	56	10.4	10.3	11.9	
75-79 years-----	214	192	*	14.8	15.1	*	

Table 14. Percent distribution of number of positive symptom responses, by race and sex: United States, 1960-62

Number of positive symptom responses ¹	Total			White		Negro	
	Both sexes	Male	Female	Male	Female	Male	Female
Percent distribution							
Total-----	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0-----	22.3	30.9	14.5	29.9	13.4	36.6	19.3
1-----	20.3	25.2	15.9	25.4	16.0	24.6	15.6
2-----	18.5	18.6	18.4	18.6	18.5	18.5	18.5
3-----	13.9	10.4	17.0	10.9	17.1	6.8	17.3
4-----	10.2	6.9	13.2	7.3	13.7	4.2	10.3
5-----	6.7	4.1	9.0	4.1	9.4	3.9	7.0
6-----	3.7	2.0	5.3	1.9	5.3	3.3	4.5
7-----	2.5	1.2	3.7	1.2	3.7	0.9	4.4
8-----	1.2	0.5	1.9	0.5	1.9	0.7	1.6
9-----	0.4	0.2	0.6	0.2	0.5	0.4	1.2
10-----	0.2	-	0.4	-	0.4	-	0.2
11-----	0.1	-	0.1	-	0.1	0.1	0.1
Mean-----	2.29	1.68	2.84	1.70	2.88	1.55	2.65
Median-----	1.90	1.17	2.59	1.28	2.62	1.04	2.31

¹ While there were 12 symptoms, the two symptoms "had a nervous breakdown" and "had felt an impending nervous breakdown" were combined into one symptom. See text under section on symptoms of psychological distress.

Table 15. Age-adjusted standard normal deviates, by sex, race, and education: United States, 1960-62

Sex, race, and education	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
Under 5 years-----	134	0.90	1.10	-1.92	0.61
5-8 years-----	680	0.60	0.45	-1.63	0.18
9-12 years-----	1,216	-1.02	-0.12	0.27	0.68
13 years and over-----	577	-0.44	-0.75	2.52	-0.90
<u>Negro</u>					
Under 5 years-----	81	0.90	0.97	-2.03	2.03
5-8 years-----	129	-0.70	0.32	0.11	-2.01
9-12 years-----	111	-0.43	-1.12	0.84	-0.54
13 years and over-----	115	-	0.27	0.47	-1.48
<u>WOMEN</u>					
<u>White</u>					
Under 5 years-----	139	0.97	-1.07	-3.11	0.66
5-8 years-----	688	1.31	0.80	0.12	-0.36
9-12 years-----	1,666	-1.05	0.49	1.34	1.05
13 years and over-----	507	-1.78	-1.62	-0.43	-2.08
<u>Negro</u>					
Under 5 years-----	80	0.45	1.27	-1.09	1.06
5-8 years-----	157	1.08	-0.54	-1.27	-1.73
9-12 years-----	188	-0.61	-0.69	0.02	0.41
13 years and over-----	37	-2.11	1.41	3.48	-0.42

¹Less than 20 cases is not considered in statistical significance tests.

Table 16. Age-adjusted standard normal deviates, by sex, race, and income: United States, 1960-62

Sex, race, and income	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
Under \$2,000-----	299	1.19	1.55	0.43	2.93
\$2,000-\$3,999-----	433	1.05	-0.01	-2.52	0.19
\$4,000-\$6,999-----	896	-0.12	-0.34	-0.35	-0.34
\$7,000-\$9,999-----	458	-1.77	0.85	2.83	-1.56
\$10,000 and over-----	371	0.03	-1.12	1.11	-1.75
<u>Negro</u>					
Under \$2,000-----	137	0.80	1.05	-1.28	0.80
\$2,000-\$3,999-----	95	-0.52	-0.49	-0.28	-1.11
\$4,000-\$6,999-----	70	0.15	-1.70	0.39	-0.81
\$7,000-\$9,999-----	16	-	0.42	0.30	-
\$10,000 and over-----	16	-	1.25	2.44	-0.25
<u>WOMEN</u>					
<u>White</u>					
Under \$2,000-----	386	0.59	0.66	-0.70	0.94
\$2,000-\$3,999-----	591	1.90	1.51	-0.30	1.20
\$4,000-\$6,999-----	934	-0.33	-1.19	0.61	-0.16
\$7,000-\$9,999-----	472	-1.09	0.48	0.89	-0.99
\$10,000 and over-----	378	-2.26	-0.87	-0.11	-0.30
<u>Negro</u>					
Under \$2,000-----	215	-0.18	0.32	-2.57	0.78
\$2,000-\$3,999-----	110	1.79	-0.50	1.52	1.09
\$4,000-\$6,999-----	70	-0.54	0.07	1.98	-2.24
\$7,000-\$9,999-----	24	-	-1.04	0.16	-3.69
\$10,000 and over-----	16	-	0.60	2.53	0.57

¹Less than 20 cases is not considered in statistical significance tests.

Table 15. Age-adjusted standard normal deviates, by sex, race, and education: United States, 1960-62—Con.

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
1.45	0.36	0.42	0.33	2.49	4.34	3.46	2.29
-0.02	1.77	0.06	-0.66	-1.83	2.41	0.66	1.34
-1.15	-0.77	-0.07	0.69	-0.16	-2.23	-0.26	-0.31
0.25	-0.40	-0.28	-0.45	1.47	-2.26	-5.42	-4.44
1.36	2.19	1.47	1.51	0.77	0.60	0.13	0.92
-0.82	-1.32	-3.24	-0.40	-0.61	0.74	1.38	0.20
-1.14	-0.64	-0.10	-0.04	-1.40	-1.41	-2.66	-2.13
-0.73	-0.16	0.43	-	0.19	-1.10	0.49	-
-0.28	1.34	0.64	-0.12	0.06	3.91	1.66	1.43
0.09	0.21	0.47	0.73	-1.83	1.04	2.26	1.92
-0.18	0.00	-0.59	0.93	-0.06	0.10	-3.37	-0.87
-0.04	-1.19	-0.80	-3.85	2.09	-3.00	-2.19	-1.68
0.83	0.82	1.13	1.46	0.11	2.48	0.59	1.21
0.51	0.15	-0.37	-0.68	0.04	0.51	0.26	-0.01
0.66	-1.04	-0.36	-1.75	-0.97	-0.68	-0.18	-0.38
-1.12	-0.94	0.28	-0.25	1.15	-0.38	-4.30	-

Table 16. Age-adjusted standard normal deviates, by sex, race, and income: United States, 1960-62—Con.

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
2.07	1.35	0.63	0.37	2.05	1.87	2.94	2.16
-0.15	0.51	0.62	0.03	0.17	2.73	1.32	-0.39
-1.50	-1.03	-1.07	-0.22	-1.37	0.48	0.78	0.39
-0.31	-1.36	1.03	0.05	0.84	-1.71	-0.52	-2.05
-0.43	0.96	-2.09	-0.13	-0.78	-2.90	-7.72	-6.40
1.52	2.65	1.01	1.25	1.55	1.67	3.10	1.81
-2.48	-3.85	-1.43	-1.20	-0.71	-1.86	-1.60	-1.13
0.40	-0.38	0.34	-0.71	-1.39	-0.88	-1.92	-
-0.47	-	-4.20	-0.44	-0.52	0.09	0.95	0.51
0.75	-	-	1.25	-	-	-	-
0.79	1.91	1.04	1.82	-0.76	3.54	1.98	1.20
0.42	-0.34	1.13	1.10	0.64	1.09	1.42	2.20
0.35	-0.72	0.18	0.36	-1.31	-2.71	-0.63	-1.84
-0.94	-1.18	-0.54	-1.78	0.27	-1.31	-1.65	-0.53
-0.72	0.15	-1.50	-2.21	2.04	-1.14	-1.22	-1.29
-0.48	-1.09	-0.03	0.53	-2.40	-0.06	0.60	-0.44
1.44	1.03	0.47	-1.06	0.07	0.53	-0.63	0.40
0.04	0.36	0.51	-0.90	1.07	-0.33	-0.19	0.74
-0.40	-2.86	-2.21	-1.70	0.90	-3.72	-4.43	-
-0.02	-0.72	-	-2.86	0.43	0.39	-	-

Table 17. Age-adjusted standard normal deviates, by sex, race, and marital status: United States, 1960-62

Sex, race, and marital status	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
Never married-----	401	1.00	-0.07	-1.05	0.29
Married-----	2,112	-0.76	-0.51	0.31	-0.76
Widowed-----	62	-0.00	0.26	1.34	0.89
Divorced-----	65	1.02	1.82	0.52	1.24
Separated-----	29	0.15	0.24	-0.57	0.48
<u>Negro</u>					
Never married-----	56	-	-1.19	-0.86	0.44
Married-----	251	0.27	1.48	0.46	0.07
Widowed-----	114	0.63	-0.57	-0.69	0.26
Divorced-----	19	-	-0.41	0.26	-1.29
Separated-----	28	-0.64	-1.10	0.07	0.98
<u>WOMEN</u>					
<u>White</u>					
Never married-----	312	-0.86	-4.48	-3.04	-6.34
Married-----	2,278	0.57	-0.18	1.05	1.00
Widowed-----	313	-1.05	0.62	-0.51	-0.47
Divorced-----	99	0.66	1.88	1.13	1.40
Separated-----	48	-0.07	2.08	0.34	1.69
<u>Negro</u>					
Never married-----	60	0.19	-1.04	-1.74	-1.04
Married-----	284	-0.47	0.89	0.85	0.15
Widowed-----	61	-0.59	-1.91	-1.00	-1.01
Divorced-----	28	0.57	1.19	1.41	1.05
Separated-----	36	1.01	-0.09	0.24	0.42

¹Less than 20 cases is not considered in statistical significance tests.

Table 18. Age-adjusted standard normal deviates, by sex, race, and usual activity status: United States, 1960-62

Sex, race, and usual activity status	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
Usually working-----	2,180	-0.74	-1.16	-0.23	-2.38
Usually keeping house-----	-	-	-	-	-
Retired-----	248	0.66	0.47	0.02	1.62
Other-----	240	1.23	1.26	0.63	2.04
<u>Negro</u>					
Usually working-----	283	0.22	-0.23	-1.10	-0.63
Usually keeping house-----	-	-	-	-	-
Retired-----	25	-0.04	1.05	-0.05	0.41
Other-----	50	-0.69	-0.38	1.56	0.53
<u>WOMEN</u>					
<u>White</u>					
Usually working-----	941	-2.02	0.81	-2.29	-3.15
Usually keeping house-----	1,949	1.16	-0.12	1.74	2.35
Retired-----	22	-0.06	-0.12	-0.43	0.27
Other-----	138	0.35	-1.62	0.45	-0.66
<u>Negro</u>					
Usually working-----	186	-0.57	0.64	0.34	-0.44
Usually keeping house-----	267	0.40	0.50	-0.28	0.39
Retired-----	12	-	-	-	-
Other-----	14	0.37	-0.15	0.50	0.66

¹Less than 20 cases is not considered in statistical significance tests.

Table 17. Age-adjusted standard normal deviates, by sex, race, and marital status: United States, 1960-62—Con.

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
1.92	-0.52	1.28	-1.18	0.81	-1.96	-0.79	-3.87
-1.17	-0.23	-0.75	0.55	-0.11	0.80	0.24	0.02
1.14	0.60	1.64	0.15	-1.69	0.15	-0.03	1.63
0.01	0.76	-0.49	-1.09	0.35	-0.73	-3.26	0.82
0.74	1.28	0.04	0.96	0.32	-0.24	1.14	0.13
-1.11	-1.60	0.53	-1.10	0.51	-1.63	-0.51	-0.44
-0.17	0.34	-1.18	1.35	-1.36	0.75	0.30	0.65
-0.04	-0.24	0.43	-	0.23	0.75	-0.42	0.83
0.90	0.14	0.87	-1.27	1.60	-	-3.66	-
0.05	-0.53	-0.10	0.58	-0.11	-0.62	0.66	-0.51
-1.68	-0.76	-2.35	-1.18	0.09	-1.63	-2.97	-3.43
0.60	-0.54	0.00	0.38	0.26	0.97	-0.10	0.46
0.34	0.57	0.19	-0.07	-0.14	0.29	1.54	0.60
0.19	1.44	1.77	0.69	-0.86	-0.55	-0.85	-0.95
0.86	1.87	1.54	0.70	-1.57	-0.60	1.17	0.81
-0.42	0.40	0.15	1.18	0.05	0.32	-5.47	0.27
-0.97	-1.75	-0.51	-1.41	-0.31	0.53	0.41	0.17
0.26	2.06	-0.14	1.18	-0.02	-0.08	1.23	-0.54
2.49	-0.43	0.25	-0.04	0.41	-0.31	0.14	-0.48
0.06	0.53	0.63	-1.67	0.31	-1.29	0.90	0.59

Table 18. Age-adjusted standard normal deviates, by sex, race, and usual activity status: United States, 1960-62—Con.

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
-1.18	-1.82	-1.11	-0.48	-0.35	0.04	-1.00	-0.72
0.90	-	-	-	-	-	-	-
0.76	1.06	0.91	0.91	0.46	0.35	1.11	1.71
1.75	1.80	1.74	0.65	0.46	-0.74	1.33	-0.25
-1.26	-0.74	-1.81	0.31	-1.56	-0.41	-0.83	-1.17
-	-	-	-	-	-	-	-
-0.98	1.19	1.02	0.88	-0.23	1.43	0.17	0.69
2.00	0.77	1.24	-1.69	1.24	0.72	1.53	0.87
-2.00	-1.25	-1.18	-2.55	-2.69	-0.87	-1.85	-1.56
1.27	0.74	0.68	1.28	0.82	0.84	1.41	1.38
0.32	-1.74	-0.49	0.77	1.41	0.61	0.45	-0.30
0.40	1.20	-0.69	-0.23	-0.23	-2.63	-1.71	-0.98
-0.17	-1.36	0.15	1.11	-1.63	0.95	-3.32	-1.07
-0.15	0.40	0.03	-1.28	1.29	-0.42	0.87	0.81
-	-	-	-	-	-	-	-
1.06	2.15	-1.54	-0.39	0.57	-1.68	1.66	-

Table 19. Age-adjusted standard normal deviates, by sex, race, and occupation: United States, 1960-62

Sex, race, and occupation	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
Professional, technical, and managerial-----	560	-2.11	0.12	2.52	-1.32
Farmers and farm managers-----	158	-0.93	0.75	-1.08	1.86
Clerical and sales workers-----	272	0.76	-0.94	2.80	0.79
Craftsmen, foremen, and kindred workers-----	480	0.52	1.39	0.40	2.06
Operatives and kindred workers-----	431	0.06	-1.44	-2.93	-1.75
Private household and service workers-----	137	-0.44	0.09	-1.43	-0.68
Farm and other laborers (except mine)-----	157	0.44	-1.68	-2.10	-0.38
<u>Negro</u>					
Professional, technical, and managerial-----	¹ 11	-	0.38	1.06	-
Farmers and farm managers-----	26	1.81	0.34	-0.46	2.60
Clerical and sales workers-----	¹ 13	-	0.59	1.35	1.10
Craftsmen, foremen, and kindred workers-----	37	-	0.44	0.62	-1.94
Operatives and kindred workers-----	74	0.19	0.80	0.18	-1.89
Private household and service workers-----	30	-0.29	-1.25	-1.14	0.01
Farm and other laborers (except mine)-----	94	-0.27	-0.78	-1.15	0.63
<u>WOMEN</u>					
<u>White</u>					
Professional, technical, and managerial-----	250	-2.18	-1.01	-1.39	-2.51
Farmers and farm managers-----	¹ 10	0.64	2.03	2.55	2.44
Clerical and sales workers-----	451	0.78	-0.15	1.61	0.25
Craftsmen, foremen, and kindred workers-----	¹ 12	-	0.76	1.00	0.87
Operatives and kindred workers-----	204	0.49	-0.34	-0.97	0.91
Private household and service workers-----	197	0.10	0.77	0.01	0.80
Farm and other laborers (except mine)-----	25	-	0.99	0.61	1.54
<u>Negro</u>					
Professional, technical, and managerial-----	26	-0.97	-0.08	1.53	-0.15
Farmers and farm managers-----	¹ 8	0.30	0.75	0.15	0.10
Clerical and sales workers-----	¹ 12	-	0.85	6.14	0.60
Craftsmen, foremen, and kindred workers-----	¹ 2	-	-	-	-
Operatives and kindred workers-----	25	-0.37	-0.88	-0.09	-1.15
Private household and service workers-----	127	0.30	-0.01	-0.55	0.40
Farm and other laborers (except mine)-----	32	0.78	-0.19	-2.30	-0.24

¹Less than 20 cases is not considered in statistical significance tests.

Table 19. Age-adjusted standard normal deviates, by sex, race, and occupation: United States, 1960-62—Con

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
1.10	-1.65	0.93	-0.30	0.71	-4.74	-1.88	-6.40
2.78	1.11	-1.94	0.69	-0.19	1.88	1.24	0.22
-2.37	-0.16	-2.08	-0.38	0.58	-0.71	-0.53	-2.15
0.37	0.88	1.30	0.87	-0.34	1.41	0.18	1.21
-2.24	-1.58	-1.19	-0.17	-1.62	1.15	0.22	-1.05
0.25	2.41	0.36	-1.07	0.67	0.21	-0.42	1.59
0.75	-0.14	0.65	-0.67	0.93	0.40	1.82	0.74
-1.32	-	-1.74	-	-	-	-	-
0.67	1.29	1.02	0.51	1.11	2.08	1.69	-
0.63	0.73	0.38	0.62	-	-0.79	-	-
-0.59	-0.86	-1.24	-2.66	0.43	-1.05	-	0.26
-0.08	-2.04	0.02	0.47	-1.12	-0.61	-0.19	0.36
-0.64	0.10	-0.30	1.12	0.13	1.09	0.24	-0.23
0.89	0.45	0.55	-0.72	0.91	0.13	0.28	0.50
-0.90	-1.05	-1.38	-3.40	0.92	-2.00	0.76	-0.34
1.68	0.38	0.25	0.70	0.47	2.78	2.10	0.46
-0.41	1.07	-0.08	0.37	0.20	-2.73	-1.96	-0.74
0.82	-0.21	2.15	-0.90	1.07	-0.15	-1.06	0.77
-0.30	-1.75	-2.32	1.82	-2.77	1.56	-0.35	-1.33
0.91	0.96	2.23	1.35	-0.14	1.87	1.26	1.64
0.99	0.17	0.20	1.22	0.44	1.08	-1.63	-0.13
-0.24	2.09	0.24	0.05	-0.34	-0.70	-0.61	-
-0.40	-	-	-0.13	-	-0.50	0.37	-
0.56	-	-0.63	0.06	0.50	-1.91	-1.19	0.48
0.58	-	-	0.15	-	-0.09	-	-
-0.86	-0.56	-0.87	-0.07	-0.18	-1.94	0.61	-
0.31	-0.52	0.41	0.12	0.33	1.69	-0.50	0.92
-0.24	0.75	1.05	-0.21	-0.01	0.20	1.36	-0.82

Table 20. Age-adjusted standard normal deviates, by sex, race, and industry: United States, 1960-62

Sex, race, and industry	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
Agriculture, forestry, and fisheries-----	219	-1.25	0.02	-1.98	1.81
Mining and construction-----	261	0.25	1.06	-1.19	0.20
Manufacturing-----	675	-1.19	-0.86	0.20	-0.45
Transportation, communication, and other public utilities--	202	0.19	-0.48	-0.76	-1.13
Wholesale and retail trade-----	359	0.67	0.82	0.86	0.83
Finance, insurance, and real estate-----	78	0.54	-0.70	1.09	-0.16
Service and miscellaneous-----	284	-0.20	0.00	1.02	-0.45
Government-----	124	0.68	-0.76	0.44	-1.27
<u>Negro</u>					
Agriculture, forestry, and fisheries-----	71	1.31	2.29	1.02	2.04
Mining and construction-----	34	-	-3.97	-0.73	-0.16
Manufacturing-----	75	0.17	-0.55	-0.46	-0.07
Transportation, communication, and other public utilities--	¹ 17	-	0.74	1.23	-
Wholesale and retail trade-----	35	0.05	0.11	-0.80	-1.07
Finance, insurance, and real estate-----	13	-	-	-0.16	-
Service and miscellaneous-----	37	0.30	-1.74	0.10	0.16
Government-----	¹ 13	0.77	0.08	1.84	0.48
<u>WOMEN</u>					
<u>White</u>					
Agriculture, forestry, and fisheries-----	34	0.59	2.05	1.00	1.31
Mining and construction-----	19	0.95	0.03	1.71	-0.48
Manufacturing-----	261	-0.07	0.47	-0.79	0.99
Transportation, communication, and other public utilities--	38	-	-0.62	0.08	0.96
Wholesale and retail trade-----	282	0.22	-0.45	1.63	0.16
Finance, insurance, and real estate-----	67	-0.10	-0.25	-0.82	-0.89
Service and miscellaneous-----	406	-0.67	-0.30	-1.28	-1.74
Government-----	51	0.88	0.07	2.58	-0.56
<u>Negro</u>					
Agriculture, forestry, and fisheries-----	39	0.79	0.15	-2.72	-0.08
Mining and construction-----	¹ 2	-	-	0.20	-
Manufacturing-----	¹ 12	-	0.71	0.02	-2.01
Transportation, communication, and other public utilities--	¹ 4	-	0.32	-	0.43
Wholesale and retail trade-----	27	-1.31	0.21	-1.27	0.26
Finance, insurance, and real estate-----	¹ 1	-	1.23	0.56	-
Service and miscellaneous-----	144	0.34	-1.11	0.95	0.45
Government-----	¹ 4	-	0.17	-0.08	-

¹Less than 20 cases is not considered in statistical significance tests.

Table 20. Age-adjusted standard normal deviates, by sex, race, and industry: United States, 1960-62—Con.

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
3.26	1.18	-0.94	0.39	-0.33	1.86	1.13	0.51
-0.21	0.67	0.92	0.00	2.01	1.33	0.35	-0.73
-1.42	-0.06	-0.43	1.21	-1.20	0.25	-0.56	-0.15
0.06	-4.11	0.75	0.48	-0.76	0.65	0.36	0.81
-0.78	-0.36	-1.34	-3.01	0.84	-2.68	-1.07	-2.34
-1.05	0.22	0.47	-0.07	0.17	-0.76	-2.16	-
2.17	-0.07	0.81	-0.30	-0.34	-0.26	0.78	0.85
-1.55	0.85	-0.62	0.22	-1.52	-1.65	0.03	1.19
2.23	1.56	-0.31	1.13	0.60	2.34	2.13	0.49
-0.27	-	0.79	-1.35	1.61	-1.98	-0.75	-0.13
0.13	-0.50	0.00	0.36	-1.86	0.75	-0.53	-0.07
-0.44	-	-1.44	-0.76	-0.02	-	-0.16	0.45
-0.95	-1.04	0.13	0.99	0.58	-0.36	-1.15	0.10
-	-	-	-	-	-	-	-
-1.08	-	-1.65	0.23	-4.51	-0.86	0.20	-0.22
0.51	1.15	-0.81	-0.88	-0.44	-0.10	-	-
1.14	0.26	0.49	1.82	0.45	1.23	1.06	0.14
0.38	-0.11	0.67	1.61	-0.59	0.46	-	0.15
-0.52	-0.33	-0.32	0.26	-1.32	0.26	0.08	-0.25
-0.24	-1.10	-0.69	-1.40	-0.49	0.27	-0.15	-
2.70	0.42	0.26	2.77	0.15	-0.13	0.54	-0.14
-1.57	0.14	-3.96	-0.02	0.90	0.20	-0.07	0.40
-0.56	0.33	0.38	-1.87	0.50	-0.32	-0.07	0.26
-0.61	-0.87	0.51	-0.42	-0.24	-1.11	-1.31	-
-0.33	0.48	0.41	-0.05	-0.16	-0.36	2.46	-1.08
0.70	-	-	0.56	-	-0.33	-	-
0.25	-	-	-0.04	-0.79	-1.92	-	-
-0.40	-	-0.04	1.45	0.73	-	-	-
-0.39	0.70	1.38	-0.64	-0.92	-1.14	-0.56	-0.97
-	-	-	1.19	-	-	-	-
0.61	-0.33	-0.10	0.13	0.19	2.12	-0.04	0.06
-	0.37	-	-	1.01	-0.41	0.34	1.36

Table 21. Age-adjusted standard normal deviates, by sex, race, and geographic region: United States, 1960-62

Sex, race, and geographic region	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
Northeast-----	953	0.89	-1.31	0.23	0.43
West-----	983	-1.51	-0.88	-0.38	-0.37
South-----	733	0.82	3.79	0.47	0.04
<u>Negro</u>					
Northeast-----	63	-1.39	-1.48	1.99	1.75
West-----	57	-	-1.05	-0.06	-0.84
South-----	238	1.19	1.70	-0.83	-0.37
<u>WOMEN</u>					
<u>White</u>					
Northeast-----	1,038	0.43	-1.26	-1.96	-0.91
West-----	1,044	-0.09	1.05	1.81	2.12
South-----	968	-0.85	0.80	0.45	-1.52
<u>Negro</u>					
Northeast-----	88	-1.14	0.26	2.35	1.86
West-----	78	-1.60	0.99	4.07	-1.82
South-----	303	1.81	-1.14	-2.40	-0.20

Table 22. Age-adjusted standard normal deviates, by sex, race, and population-size group: United States, 1960-62

Sex, race, and population-size group	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
Giant metropolitan areas-----	586	2.24	-1.42	-0.49	-1.52
Other very large metropolitan areas-----	398	-2.90	1.11	-0.37	0.11
Other standard metropolitan statistical areas-----	632	-1.33	0.33	0.42	0.55
Other urban areas-----	504	0.91	0.74	0.44	1.37
Rural areas-----	549	-0.67	-1.61	-0.24	-0.12
<u>Negro</u>					
Giant metropolitan areas-----	65	-0.71	-0.16	-2.46	-0.41
Other very large metropolitan areas-----	34	-	-0.39	0.09	0.10
Other standard metropolitan statistical areas-----	53	0.72	-0.12	-0.04	-0.14
Other urban areas-----	88	0.33	1.64	0.22	0.67
Rural areas-----	118	0.41	-0.51	-3.10	-0.51
<u>WOMEN</u>					
<u>White</u>					
Giant metropolitan areas-----	644	-0.11	-0.36	-1.88	0.83
Other very large metropolitan areas-----	490	-0.20	-2.15	0.44	-1.08
Other standard metropolitan statistical areas-----	686	-0.15	-1.53	-0.10	-1.29
Other urban areas-----	576	0.94	1.99	1.17	-0.63
Rural areas-----	654	-0.76	0.16	0.53	1.52
<u>Negro</u>					
Giant metropolitan areas-----	90	-0.63	0.05	0.87	1.19
Other very large metropolitan areas-----	49	-3.57	0.23	-0.64	-1.63
Other standard metropolitan statistical areas-----	64	0.29	-0.36	0.58	-1.24
Other urban areas-----	113	0.56	-0.82	-1.01	0.81
Rural areas-----	153	1.94	0.90	0.20	0.42

Table 21. Age-adjusted standard normal deviates, by sex, race, and geographic region: United States, 1960-62—Con.

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
-1.79	-0.43	0.59	0.07	-5.27	-0.64	-3.10	-1.20
0.39	-1.99	-0.48	0.04	2.50	-1.21	0.77	0.74
0.83	3.24	-1.00	-0.13	1.14	2.93	0.43	0.08
-0.04	-4.14	0.43	1.06	-0.55	0.61	0.01	-2.02
0.06	-1.87	0.18	-2.06	0.10	-0.50	-0.74	-0.06
-0.02	1.50	-0.81	0.62	0.18	0.09	0.45	1.10
-1.66	-2.97	-2.95	-1.33	-2.27	-2.22	-4.32	-1.94
0.27	-0.19	0.89	-0.22	0.55	-0.07	0.42	1.54
1.66	1.81	1.29	2.54	1.05	1.96	2.48	0.35
0.24	-3.80	0.33	-0.64	-1.39	-2.68	-1.80	-0.88
0.63	-0.73	1.15	1.25	1.53	0.25	0.55	-0.63
-0.81	0.68	-1.77	-1.07	-0.15	1.31	0.66	0.81

Table 22. Age-adjusted standard normal deviates, by sex, race, and population-size group: United States, 1960-62—Con.

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
-0.69	-1.94	-0.33	-0.03	-2.32	-1.87	-3.23	-2.02
0.42	-1.33	0.99	0.34	-1.01	-0.97	-1.58	-3.06
-1.63	0.79	0.10	-2.35	-0.17	0.59	-3.26	-1.24
0.01	2.52	-0.05	1.19	2.37	1.37	0.80	0.74
1.18	-0.90	-0.92	-0.06	1.54	1.03	1.75	2.70
-0.47	-3.02	0.77	-0.02	-0.45	-0.16	1.22	-0.47
-0.06	0.13	0.81	0.04	0.34	-1.90	-0.72	0.18
-0.30	0.11	-0.43	0.11	-2.13	-0.36	-0.81	0.18
0.24	0.77	-2.46	1.03	-0.03	0.46	-0.04	0.15
0.28	0.00	0.75	-1.44	1.63	0.21	0.40	-0.17
-0.51	-0.77	-0.10	-3.14	-1.84	-0.94	-1.17	-0.75
-0.45	-2.73	-1.62	0.23	0.75	-0.39	-2.39	-5.04
-0.92	-1.15	-0.48	-0.83	-0.61	-1.99	-0.89	0.02
1.80	1.59	2.03	1.27	0.80	2.48	1.83	0.99
0.22	0.55	0.06	1.23	0.55	0.87	0.86	1.24
1.16	-1.42	-0.14	-0.45	0.06	-1.15	-2.11	-1.11
-0.55	-0.08	-0.84	-0.05	1.02	-2.00	-0.77	0.08
0.23	0.62	0.15	-0.45	-0.37	-0.34	-0.71	0.04
0.40	2.71	0.45	1.00	-0.07	2.05	1.22	-0.31
-1.27	-1.48	0.23	0.41	-0.39	0.31	4.00	0.80

Table 23. Age-adjusted standard normal deviates, by sex, race, and place description: United States, 1960-62

Sex, race, and place description	Number examined	Nervous breakdown	Felt impending nervous breakdown	Nervousness	Inertia
<u>MEN</u>					
<u>White</u>					
SMSA—in central city-----	750	-0.30	1.73	0.20	0.94
SMSA—outside central city-----	879	-0.41	-2.17	-0.56	-2.09
Urban—not SMSA-----	382	1.32	-0.33	2.25	-0.25
Rural farm-----	227	-2.19	-0.25	-2.54	1.01
Rural nonfarm-----	431	-0.07	0.30	0.51	0.85
<u>Negro</u>					
SMSA—in central city-----	137	-0.49	-0.15	2.29	-0.70
SMSA—outside central city-----	34	0.15	-0.21	-0.10	-0.07
Urban—not SMSA-----	49	-0.81	-0.07	-0.40	2.28
Rural farm-----	57	0.13	1.39	-0.59	0.41
Rural nonfarm-----	81	0.82	-0.24	-0.77	-0.99
<u>WOMEN</u>					
<u>White</u>					
SMSA—in central city-----	875	0.76	-0.73	-1.74	0.03
SMSA—outside central city-----	951	-1.11	-1.02	-0.15	-0.76
Urban—not SMSA-----	485	1.05	1.86	1.45	-0.42
Rural farm-----	199	-0.36	-0.75	-0.09	2.61
Rural nonfarm-----	540	0.20	0.57	1.87	0.47
<u>Negro</u>					
SMSA—in central city-----	186	-0.46	-0.73	0.20	-1.34
SMSA—outside central city-----	36	-0.98	0.19	1.12	0.28
Urban—not SMSA-----	76	0.54	-0.45	0.09	1.44
Rural farm-----	63	0.13	0.95	-0.86	0.06
Rural nonfarm-----	108	0.48	0.52	-1.62	0.63

Table 23. Age-adjusted standard normal deviates, by sex, race, and place description: United States, 1960-62—Con.

Insomnia	Trembling hands	Nightmares	Perspiring hands	Fainting	Headaches	Dizziness	Heart palpitations
0.16	-0.11	0.55	-0.87	-1.63	-1.52	-2.10	-0.63
-1.69	-0.84	-0.29	-1.08	-0.90	-1.72	-5.35	-5.89
0.45	0.93	0.69	0.62	2.10	0.97	0.67	0.68
1.83	-0.26	-0.50	0.51	0.17	1.75	1.48	0.03
-0.02	0.54	-0.59	0.94	0.69	3.10	1.65	3.25
-0.68	-1.33	0.43	0.39	-1.83	-1.20	-0.35	0.28
-0.27	0.57	-0.10	-0.89	0.30	-1.01	-0.25	
-0.91	-0.15	-1.11	0.07	-0.08	0.44	0.40	0.55
0.55	1.13	-0.22	0.59	0.22	0.90	1.47	0.76
1.34	-0.30	0.19	-0.21	0.93	0.72	-0.60	-0.93
-1.50	-1.91	0.02	-1.43	-1.27	-0.74	0.47	0.71
0.22	-1.43	-1.28	-1.01	0.53	-2.44	-4.24	-3.11
2.02	1.96	1.36	0.87	0.27	1.03	2.83	0.38
0.13	0.57	0.48	1.99	0.87	2.22	2.56	3.10
0.66	0.98	0.64	2.07	0.57	1.89	1.76	2.42
-0.13	-0.59	-0.47	-0.78	0.60	-2.09	-2.28	-0.33
1.15	0.64	0.59	0.50	-0.04	0.83	-0.39	-0.30
-0.34	1.71	-0.27	-0.10	0.00	0.48	1.68	-1.12
-0.51	-0.78	0.44	0.64	0.35	0.70	1.57	0.76
-0.65	-0.75	0.48	0.81	-1.27	2.11	0.80	1.54

APPENDIX I

STATISTICAL NOTES

The Survey Design

The first cycle of the Health Examination Survey employed a highly stratified multistage probability design in which a sample of the civilian, noninstitutional population of the conterminous United States 18-79 years of age was selected. At the first stage, a sample of 42 primary sampling units (PSU's) was drawn from among the 1,900 geographic units into which the United States was divided. Random selection was controlled within regional and size-of-urban-place strata into which the units were classified. As used here a PSU is a standard metropolitan statistical area or one to three contiguous counties. Later stages result in the random selection of clusters of typically about four persons from a neighborhood within the PSU. The total sample included some 7,700 persons in 29 different States. The detailed structure of the design and the conduct of the survey have been described in previous reports.^{1,2}

Reliability

The methodological strength of the survey derives especially from its use of scientific probability sampling techniques and highly standardized and closely controlled measurement processes. This does not imply that statistics from the survey are exact or without error. Data from the survey are imperfect for three major reasons: (1) results are subject to sampling error, (2) the actual conduct of a survey never agrees perfectly with the design, and (3) symptom statements and response options are subject to personal interpretations.

The first-stage evaluation of the survey was reported in reference 2, which dealt principally with an analysis of the faithfulness with which the sampling design was carried out. This study notes that out of the 7,700 sample persons the 6,670 who were examined—a response rate of over 86 percent—gave evidence that they were a highly representative sample of the civilian, noninstitutional population of the United States. Imputation of nonrespondents was accomplished by attributing to nonexamined persons the characteristics of comparable examined persons as described in reference 2. The specific procedure used amounted to inflating the sampling weight for each examined person in order to compensate for sample persons at that stand of the same age-sex group who were not examined.

Sampling and Measurement Error

The probability design of the survey makes possible the calculation of sampling errors. Traditionally the role of the sampling error has been the determination of how imprecise the survey results may be because they come from a sample rather than from the measurement of all elements in the universe.

The estimation of sampling errors for a study of the type of the Health Examination Survey is difficult for at least three reasons: (1) measurement error and "pure" sampling error are confounded in the data—it is not easy to find a procedure which will either completely include both or treat one or the other separately, (2) the survey design and estimation procedure are complex and accordingly require computationally involved techniques for the calculation of variances, and (3) from the survey are coming thousands of statistics, many for subclasses of the population for which there are a small number of sample cases. Estimates of sampling error are obtained from the sample data and are themselves subject to sampling error when the number of cases in a cell is small or even occasionally when the number of cases is substantial.

Estimates of approximate sampling variability for selected statistics used in this report were computed for the detailed tables. These estimates have been prepared by a replication technique which yields overall variability through observation of variability among random subsamples of the total sample. The method reflects both "pure" sampling variance and a part of the measurement variance.

In accordance with usual practice, the interval estimate for any statistic may be considered the range within one standard error of the tabulated statistic, with 68 percent confidence; or the range within 1.96 standard error of the tabulated statistic, with 95-percent confidence.

Expected Values

In tables 15-23 the actual symptom prevalence rates for the various demographic variables are compared with the expected. The computation of expected rates was done as follows:

Suppose that in an area (say, the Northeast) the Health Examination Survey estimates that there are N_i persons in the i^{th} age-sex-race group ($i=1,2,\dots,42$; sum of $N_i=N$).

Suppose the Health Examination Survey estimates that the prevalence rate for nervousness for the United States in the i^{th} age-sex-race group is X_i .

Then the expected rate of nervousness for the area is

$$\frac{1}{N} \sum_i N_i X_i$$

Comparison of an actual value for, say, a region with the expected value for that region is undertaken on the assumption that a meaningful statement can be made which holds, in some average way, for all persons in the region. This may or may not be true. The specified region may have higher values for young persons and lower values for old persons than are found in other regions. In that case an average comparison will obliterate one or both of these differentials. A similar remark may be made with respect to values computed for all races together, since relationships found in one race may not be found in another. Some instances will be noted in the detailed tables where the white and Negro differentials are not the same. In arriving at the general conclusions expressed in the text, an effort was made to consider all the specific data, including data not presented in this report; but it must be recognized that balancing such evidence is a qualitative rather than quantitative exercise. The standard error of the difference between an actual and

expected value may be approximated by the standard error of the actual value.

Small Numbers

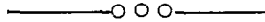
In some tables magnitudes are shown for cells for which sample size is so small that the sampling error may be several times as great as the statistic itself. Obviously in such instances the statistic has no meaning in itself except to indicate that the true quantity is small. Such numbers have been included to convey an impression of the overall story of the table.

Tests of Significance

Tests of significance for the demographic variables were performed in three ways. The first was to divide the difference between the actual and expected values by the standard error of the actual value. For example, for white men with less than 5 years of education the actual prevalence for headaches was 13.6 percent higher than expected, and the standard error was 3.1 percent. Since the difference was more than four times its standard error, it may be deemed statistically significant.

The second method was to use tables of the cumulative binomial probability distribution¹⁵ to establish if a trend of high or low rates for the 12 symptoms on a given variable was more frequent than expected.

The third method was by use of Chi Square on actual sample frequencies.



APPENDIX II

DEMOGRAPHIC TERMS

Age.—The age recorded for each person is the age at last birthday. Age is recorded in single years.

Race.—Race is recorded as "White," "Negro," or "Other." "Other" includes American Indian, Chinese, Japanese, and so forth. Mexican persons are included with "White" unless definitely known to be Indian or of another race other than white.

Education.—Each person is classified by education in terms of the highest grade of school completed. Only grades completed in regular schools, where persons are given a formal education, are included. A "regular" school is one which advances a person toward an elementary or high school diploma or a college, university, or professional school degree. Thus, education in vocational, trade, or business schools outside the regular school system is not counted in determining the highest grade of school completed.

Income of family or unrelated individuals.— Each member of a family is classified according to the total income of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own income.

The income recorded is the total of all income received by members of the family in the 12-month period preceding the week of interview. Income from all sources is included, e.g., wages, salaries, rents from properties, pensions, help from relatives, and so forth.

Marital status.— The categories of marital status are *married*, *widowed*, *divorced*, *separated*, and *never married*. Persons with common-law marriages are considered to be married. Separated refers to married persons who have a legal separation, those living apart with intentions of obtaining a divorce, and other persons permanently or temporarily estranged from their spouse because of marital discord.

Usual activity status.— All persons are classified according to their usual activity status during the 12-month period prior to the week of interview. The "usual" activity status, in case more than one is reported, is the one at which the person spent the most time during the 12-month period.

The categories of usual activity status used are *usually working*, *usually keeping house*, *retired*, and *other*. For several reasons these categories are not comparable with somewhat similarly named categories in official Federal labor force statistics. First, the responses concerning usual activity status are ac-

cepted without detailed questioning, since the objective of the question is not to estimate the numbers of persons in labor force categories but to identify crudely certain population groups which may have differing health problems. Second, the figures represent the usual activity status over the period of an entire year, whereas official labor force statistics relate to a much shorter period, usually 1 week. Finally in the definitions of specific categories which follow, certain marginal groups are classified differently to simplify procedures.

Usually working includes persons who are paid employees; self-employed in their own business, profession, or in farming; or unpaid employees in a family business or farm. Work around the house or volunteer or unpaid work, such as for a church, etc., is not counted as working.

Usually keeping house includes women whose major activity is described as "keeping house" and who cannot be classified as "working."

Retired includes persons 45 years of age and older who consider themselves to be retired. In case of doubt a person 45 years of age or older is counted as retired if he or she has either voluntarily or involuntarily stopped working, is not looking for work, and is not described as "keeping house." A retired person may or may not be unable to work.

Other in this report includes men not classified as "working" or "retired" and women not classified as "working," "keeping house," or "retired." Persons who are going to school are included in this group.

Occupation.—A person's occupation may be defined as his principal job or business. For the purposes of this survey the principal job or business of a respondent is defined in one of the following ways. If the person worked during the 2-week-reference period of the interview or had a job or business, the question concerning his occupation (or what kind of work he was doing) applies to his job during that period. If the respondent held more than one job, the question is directed to the one at which he spent the most time. It refers to the one he considers most important when equal time is spent at each job. A person who has not begun work at a new job, is looking for work, or is on layoff from work is questioned about his last full-time

civilian job. A full-time job is defined as one at which the person spent 35 hours or more per week and which lasted 2 consecutive weeks or more. A person who has a job to which he has not yet reported and has never had a previous job or business is classified as a "new worker."

The occupational groups are shown below with the appropriate census code categories.

<i>Occupational title</i>	<i>Census code</i>
Professional, technical, and managerial-----	R, 000-195, 250-265
Farmers and farm managers-----	N, 292
Clerical and sales workers-----	S, Y, Z, 301-395
Craftsmen, foremen, and kindred workers-----	Q, 401-545
Operatives and kindred workers-----	T, W, 601-721
Private household and service workers-----	P, 801-803, 810-890
Farm and other laborers (except mine)-----	U, V, X, 901, 905, 960-973

Industry.—The industry in which a person was reportedly working was classified by the major activity of the establishment in which he worked.

The only exceptions to the above are those few establishments classified according to the major activity of the parent organization, and they are as follows: laboratories, warehouses, repair shops, and places for storage.

The industry groupings are shown below. (Data on industry were not collected for Valdosta and Philadelphia.) The census code (the Classified Index of Occupation and Industries) and the Standard Industrial Classification (SIC) code components are also listed.

<i>Industry title</i>	<i>Census code</i>	<i>SIC code</i>
Agriculture, forestry, and fisheries-----	A, 017, 018	01, 02, 07 (exc. 0713), 08, 09
Mining and construction-----	C, 126-156	10-14, 15-17
Manufacturing-----	B, M, 206-459	19-39, 0713
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The industry title "government" differs somewhat from the usual industrial classification of government, since it is limited to the postal service and Federal, State, and local public administrations. This category includes only uniquely governmental functions and ex-

cludes those activities which may also be carried out by private enterprise. For example, teachers in public educational facilities and nurses engaged in medical services of governmental agencies are included with the "service and miscellaneous" group.

Region.—For the purpose of classifying the population by geographic area, the United States was divided into three major regions. This division was especially made for the design of the HES sample. The regions and the States included are as follows:

<i>Region</i>	<i>States included</i>
Northeast-----	Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Ohio, and Michigan
South-----	Delaware, Maryland, District of Columbia, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas
West-----	Washington, Oregon, California, Idaho, Nevada, Montana, Utah, Arizona, Wyoming, Colorado, New Mexico, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, and Indiana

Population size.—The five classes comprising this characteristic were derived from the design of the sample which accomplished a stratification of the primary sampling units by population size in each of three broad geographic locations. Because the survey was started in 1960, the primary sampling units within each of the five population-size classes were necessarily based on populations and definitions of the 1950 census. The name of each selected primary sampling unit within each population-size class and geographic location, along with other selected sample data, are presented in an earlier report.²

The definitions for each of the five population-size classes are as follows:

Giant metropolitan areas.— This class includes primary sampling units defined in the census as standard metropolitan statistical areas (SMSA's) and having populations of 3 million persons or more.

Other very large metropolitan areas.—Included in this class are standard metropolitan statistical areas

with populations of 500,000 to 3 million as defined by the 1950 census.

Other standard metropolitan statistical areas.—This class includes other SMSA's.

Other urban.—This includes primary sampling units which were highly urban in composition but were not defined as SMSA's.

Rural.—This includes primary sampling units which were primarily rural in composition according to census definitions.

Place description.—In this survey the urban population is classified as living "in the central city" or "outside the central city" of an SMSA. The remaining urban population is classified as "not in SMSA."

The definitions and titles of standard metropolitan statistical areas are established by the U.S. Bureau of the Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas.

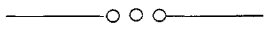
The definition of an individual standard metropolitan statistical area involves two considerations: first, a city or cities of specified population to constitute the central city and to identify the county in which it is located as the central county; and, second, economic and social relationships with contiguous counties which are metropolitan in character so that the periphery of the specific metropolitan area may be determined.

Persons "in the central city" of an SMSA are therefore defined as those whose residency is in the city appearing in the standard metropolitan statistical area title. Persons residing in an SMSA but not in the city

appearing in the SMSA title are considered to reside "outside the central city."

The urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, villages, and towns (except towns in New England, New York, and Wisconsin); (b) the densely settled urban fringe, whether incorporated or unincorporated, of urbanized areas; (c) towns in New England and townships in New Jersey and Pennsylvania which contain no incorporated municipalities as subdivisions and have either 25,000 inhabitants or more or a population of 2,500-25,000 and a density of 1,500 persons or more per square mile; (d) counties in States other than the New England States, New Jersey, and Pennsylvania that have no incorporated municipalities within their boundaries and have a density of 1,500 persons or more per square mile; and (e) unincorporated places of 2,500 inhabitants or more not included in any urban fringe.

The remaining population is allocated into rural-farm and rural-nonfarm groups. The farm population includes all persons living in rural territory on places of 10 or more acres from which sales of farm products amounted to \$50 or more during the previous 12 months or on places of less than 10 acres from which sales of farm products amounted to \$250 or more during the preceding 12 months. Other persons living in rural territory were classified as nonfarm. Persons were also classified as nonfarm if their household paid rent for the house but their rent did not include any land used for farming.



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