a search for additional aspects of social isolation that might eventually constitute a valid and more reliable measurement of this phenomenon of social disorganization and its crucial relation to schizophrenia.

Nevertheless, the tenability of the hypothesis relating social isolation to the incidence of schizophrenia by the relatively crude measures at our disposal seems to be indicated. At least the prevalence of a high degree of social isolation in those communities known to have high incidence-rates of this mental disorder has been empirically established, and warrants serious consideration as a precipitating influence in the social etiology of schizophrenia.

SOCIAL MOBILITY AND MENTAL ILLNESS

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THE idea that an individual's movement in the social structure is associated with the development of psychiatric difficulties has been expressed both by psychiatrists and sociologists. Some empirical research has been done on the question, but psychiatrists and sociologists

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4 The present research team is composed of two psychiatrists, Drs. F. C. Redlich and B. H. Roberts, and two sociologists, A. B. Hollingshead and J. K. Myers.

neurotic and schizophrenic patients in classes III and V were drawn from the psychiatric population of the New Haven community. Comparable control sub-samples of non-patients from classes III and V were drawn from the general population.

The sub-samples were selected from non-adjacent classes because we believed that the influence of class factors could be determined more easily in persons from distinctly different classes than in persons from adjacent classes. Classes III and V were selected for the following reasons: first, these classes have sharply different prevalence rates for treated schizophrenia and psychoneurosis; second, they have not been studied carefully in previous psychiatric research; and third, they comprise approximately 40 per cent of the population of the New Haven community.

Each class may be characterized briefly as follows: Class III is composed of proprietors of small businesses, white-collar workers, and skilled manual workers who are, for the most part, high-school graduates. These people live in apartments, flats, and single family dwellings in widely-scattered residential areas. Class V is composed almost exclusively of unskilled and semi-skilled workers who typically have an elementary education or less and who live in the most crowded slum areas of the city.

The combination of patients from two different diagnostic categories and two social classes, with non-patients from the same classes, produced the six cell research design presented in Table 1. A glance at Table 1 will show that each of the four cells for patients is filled with a minimum of 12 cases; each cell for non-patients is populated with 30 individuals.

All individuals in the study, patients and non-patients, are white and between the ages of 22 and 44. These age limits were imposed because attention was focused upon patients who presumably had reached adult responsibility and adjustment, but who had not entered the involutional period. The ages of the non-patients were held to the same limits so comparisons could be made between the two groups.

Detailed data were collected on each patient by the psychiatrist and sociologists with a 128-page schedule. While the data were being assembled on the patients, the sociologists interviewed the non-patients with a shorter schedule.

The representativeness of the sub-samples of patients and non-patients to their appropriate universes was crucial to the research. This was complicated by the differences in the ways the two sub-samples were obtained. Patients who met the requirements of the research design were selected individually. The non-patients, on the other hand, were selected at random from the 5 per cent systematic sample of the community's population used in earlier phases of the research. Representativeness of the non-patients was determined by comparing them with the systematic sample of the population.

Table 1. Number of Patients and Non-Patients Studied by Class

<table>
<thead>
<tr>
<th>Social Classes</th>
<th>Patients</th>
<th>Non-Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Neurotics</td>
<td>Schizophrenics</td>
</tr>
<tr>
<td>III</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>V</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

8 The schedule was divided into four parts. The first part was filled out by a psychiatrist in interviews with the patient; the second was filled out by a psychiatrist in an interview with the patient's therapist. The third and fourth parts were filled out by a sociologist in interviews with members of the patient's family of orientation and his family of procreation. In addition, considerable material came from the clinical record and the clinical interview that Dr. Redlich had with each patient at the end of the interviewing process. As a last step, the team developed two assessment schedules to evaluate the data systematically. The schedule covered the following areas: psychopathological history, history of physical illnesses, attitude toward psychiatry and psychiatric treatment, social identification, family dynamics, education, religion, ethnicity, recreation, occupation, housing, and social class.

6 A Psychiatric Census of patients in the New Haven community on December 1, 1950, was taken by the Research Team. For a report of this activity, see A. B. Hollingshead and F. C. Redlich, "Social Stratification and Psychiatric Disorders," op. cit., p. 166.

7 A systematic 5 per cent sample of the population of the New Haven community in November, 1950, was interviewed by the Research Team. This is reported in ibid.
Social Mobility and Mental Illness

General population on the following variables: age, sex, religion, ethnic origin, and class score. The patients were compared with the psychoneurotics and schizophrenics in the psychiatric population on the same variables. No significant difference was found at the 5 per cent level of confidence on any variable when the two groups were compared with their parent universes. In short, the patients were representative of all psychiatric patients in their appropriate age, sex, class, and diagnostic groups, and the non-patients were representative of the New Haven population in their age, sex, and class groups. When the representativeness of the two sub-samples was established, assumed interrelations between class position, mobility factors, and mental illness were tested.

The general proposition under study hypothesizes that in the several social classes, interrelationships exist between mobility factors and diagnosed psychoneurosis and schizophrenia. Data on only two types of mobility factors are reported here. They are: (1) achieved social mobility, and (2) discrepancies between an individual's achievements and his aspirations. A specific proposition on each factor was stated as follows:

1. A differential relationship exists in the amount of social mobility achieved by non-patients in comparison with psychoneurotics, or schizophrenics, in classes III and V.
2. A significant discrepancy exists between a class III, or a class V, psychoneurotic's or schizophrenic's achievements and his aspirations.

The first proposition grew out of analyses the team had made of different aspects of mobility among 847 schizophrenics in an extensive study reported elsewhere. That work indicated that the originally hypothesized relationship between status striving and mental disorders was probably different in the several classes. The second proposition was formulated after preliminary analysis of the data on mobility indicated interrelationships between the disorders of the psychoneurotic and schizophrenic patients and their efforts to realize their aspirations. Unfortunately, we were unable to make the same analyses in the non-patient group, because the data were not identical for the patients and non-patients.

The Findings

Proposition One: Achieved Social Mobility. Statistical tests of the first proposition were dependent upon the measurement of achieved social mobility. It was measured by the use of Hollingshead's two factor Index of Social Position. This Index is based upon education and occupation. To use it, the number of years of school the individual has completed is scored on an educational scale; likewise, his occupation is scored on an occupational scale. Then, the scale value for education is multiplied by a weight of six, and the scale value for occupation by a weight of eight. The resulting calculated score is assumed to be a measure of the individual's position in the community's class structure.

Two Index scores were computed on each patient and non-patient. The first was the score of the individual's parental family; the second was the score of the individual being studied. The difference between the score of the parental family and the score of the individual in the study, whether positive or negative, was used as the measure

9 The patients in the Psychiatric Census mentioned in Footnote 6 are referred to here.
10 Chi-square, the t-test, and analysis of variance were used on appropriate variables to determine whether the sub-sample under test varied significantly from its parent universe.
12 The occupational rating used here was the last job the patient held before he entered treatment. His father's occupation was the one he followed in his mature years.
13 The scores on this Index range from 14 to 98. A score of 14 represents the highest position an individual could reach by a combination of outstanding educational and occupational achievements and 98 the lowest position. To receive a score of 14 an individual has to have a graduate professional degree, and be engaged in a profession, or be a high executive in a large business. A score of 98 is assigned to an individual with less than seven years of schooling, who is an unskilled laborer. All degrees of education and types of jobs fall within these extremes.
of the individual's achieved social mobility. If the difference was positive, the individual was considered to be upward mobile; if negative, he was viewed as downward mobile.  

When achieved social mobility had been defined, the crucial question was: Have the psychoneurotics or the schizophrenics in either class III or class V been significantly more mobile or less mobile than the non-patients? Answers to this question were sought by making a series of comparisons of social mobility scores of the non-patients with the patients.

**Achieved Social Mobility in Class III.**

Class III individuals, both patients and non-patients, were far more mobile than class V individuals. As we expected, achieved social mobility in class III was almost entirely upward. Only three individuals were downward mobile by as many as 10 points; one was a non-patient, one was a psychoneurotic, and one was a schizophrenic. All others were upward mobile by varying amounts. Three patients moved upward more than 50 points. All were females; one was a psychoneurotic; the others were schizophrenics.

The amounts of mobility achieved by the non-patients, the psychoneurotics, and the schizophrenics, are summarized in Table 2. Table 2 shows that, in comparison with their parental families, the non-patients moved upward 20 points, the psychoneurotics 27 points, and the schizophrenics 36 points on the Index of Social Position. The differences in achieved upward mobility between both the psychoneurotics and the non-patients, and the schizophrenics and the non-patients, are striking. These data indicate a definite interrelationship between social mobility and mental illness. The controls have been the least mobile, and the schizophrenics the most mobile of the three groups. This suggests a correlation between the extent of a class III individual's achieved mobility and the severity of his illness.

Since the achieved mobility scores were calculated by comparing the scores of the present generation with the parental generation, the next step was to determine if the the non-patients, the psychoneurotics, and the schizophrenics had the same, or different, parental base lines. Components included in the base line were: (1) the Index of Social Position of the family or orientation; (2)
of these factors\textsuperscript{19} when the non-patients in class III were compared with the psychoneurotics and schizophrenics. Two conclusions were clear from these comparisons: first, that the three groups, non-patients, psychoneurotics, and schizophrenics, had come from an essentially homogeneous social and cultural base; any differences that existed were of a random order; second, that the demonstrated differences in achieved social mobility in the present generation were produced by the differential efforts of the individuals in the study to attain more education and to get better jobs than their parents had had. In addition, the inference may be made that the psychoneurotics, and espically the schizophrenics, were over-achievers.

\textit{Achieved Social Mobility in Class V.}\textsuperscript{20}

The average achieved social mobility for each group in class V is summarized also in Table 2. A glance at Table 2 will show that the non-patients, on the average, moved upward 8 points. The schizophrenics also moved upward 8 points, but the psychoneurotics made a 12 point gain. The amount of upward mobility achieved by the psychoneurotics is significantly more than by the non-patients; obviously, there is no difference between the non-patients and the schizophrenics.\textsuperscript{21}

\textsuperscript{19} The \textit{t}-test was used to test significance of difference on the \textit{Index of Social Position} between the families of orientation of the non-patients in comparison with the psychoneurotics, and the schizophrenics; chi-square was used to test significance on the other factors in the base lines.

\textsuperscript{20} Achieved social mobility patterns are very different in class V from those in class III. Class V individuals are not as mobile as the class III's, but the general tendency is upward. Surprisingly enough, no class V individual was downward mobile and only one, a schizophrenic, was upward mobile by as many as 20 points. These figures indicate that there is much less variance in class V than in class III.

\textsuperscript{21} When the achieved mobility data of the patients were compared with those of their adult brothers and sisters, no significant difference was found between the mobility scores of the psychoneurotics and their siblings. The schizophrenics, however, had significantly lower mobility scores than their brothers and sisters. They appeared to be under-achievers within the sibling group. However, the differences between the schizophrenic patients and their non-patient siblings were small.
to achieve in each area was defined as aspiration. The difference between what was attained and what was hoped for was defined as discrepancy. The discrepancy, if any, between achievement and aspiration was assumed to be a stress vector in the patient's life.

Throughout this phase of the analysis we were concerned with the question: Are the aspirations expressed by these patients an integral part of their personality structures or are they merely scenery on the stages of their make-believe worlds? In order to answer this question, each patient's history was studied to determine if evidence supported his statements of his aspirations. If his pre-morbid behavior indicated he had made more or less consistent efforts to bridge the gap between his claimed aspirations and his actual achievements, it was inferred that verbalized statements of his hopes were meaningful elements in his personality.

**Educational Discrepancies—Class III.**

The data on educational achievement, aspiration, and discrepancies in class III are summarized in Table 3. This tabulation shows that the average class III psychoneurotic completed slightly more than one year of college, but he aspired to a college degree. The average class III schizophrenic completed two years of college, and he too, wanted to finish college. The discrepancy between educational achievement and aspiration among the class III psychoneurotics and schizophrenics is significant.

Twelve of the 13 psychoneurotics in class III were dissatisfied with the amount of education they received. One of the 12 summed up these feelings of educational inadequacy when he said with reference to his hopes for his children's education: "Parents today want their children to have the amount of education that the parents themselves wanted to receive." This man had worked his way through two years of college, and he was eager to see his children realize the hopes he had once held for himself. This man was typical, for all these patients had worked hard to achieve their educations. Moreover, they viewed education as the area of activity that would enable them to realize their goals in life.

In class III, schizophrenics emphasized education more strongly than the psychoneurotics; and they implemented their desires by going to school a year longer, on the average. Every schizophrenic had put forth great personal efforts to obtain his education. He was usually a good student; and he enjoyed school. Typically his problem was to get enough education to prepare him for the job he wanted. He worked upon the premise that if he could get enough education he would get the desired job, then he would be accepted socially, and his problems would be ended. Finally, he looked upon education as a panacea for his personal and social problems.

Apparently these patients did not recognize that factors other than education are involved in the realization of successful aspirations. For example, one patient with an I.Q. of 140 graduated in 1936 from high school at the age of 16, with an "A" average. He intensely desired to enter an Ivy League university, but his family was on relief. He took examinations for the United States Military Academy, but did not pass the physical examination. At this point in his career he had a schizophrenic break with a remission of symptoms. He went to work instead of to college, and his dream of a college education appeared to be but a memory. However, World War II came and he joined the Army. While he was overseas he had another psychiatric break and was hospitalized. After the war he married, had a family, and applied for educational benefits under the G.I. Bill, entered college, but not in the Ivy League, and began upon the realization of his educational dream. He worked nights to supplement his G.I. benefits and to support his family, and completed the work for his bach-
elor's degree in the usual four years. However, he discovered to his dismay, that his college education had not fitted him for a particular job he desired. He was frustrated, angry, and misunderstood. His wife could not understand why he could not step out and command a job commensurate with his education so that she could be supported in the style she had dreamed of in the years he was in college. His parents could not see why their son did not get the kind of job they thought a college man should have. He did not realize that he was ten years older than the usual college graduate, and that employers were more interested in this fact than in his education. In short, this man, like the other class III schizophrenics who had over-aspired and over-achieved in the educational sphere, was not able to consolidate his educational achievement. The net result was excruciating anxiety over his failure to realize his job and status aspirations.

Class V. Educational achievements and aspirations among the class V patients are summarized in Table 4. This tabulation shows that the discrepancy between achievement and aspiration is significant for both the psychoneurotics and the schizophrenics. The class V schizophrenics all encountered educational frustrations. Most of them were compelled to leave elementary school, at the earliest legal age, by a combination of economic circumstances and parental indifference, if not hostility, toward education. As adults they regretted their lack of an education, and they were aware that they could not improve their positions without more education, but they felt incapable of obtaining it.

Occupational Discrepancies—Class III. When we turn from the educational to the occupational area, we find a definite discrepancy between the actual and the idealized. However, there are no differences in the occupations engaged in by the class III psychoneurotics in comparison with the class III schizophrenics. Both groups have moved in this generation from manual work into work that requires specialized training and reasonably smooth interpersonal relations. The men are employed as clerks, salesmen, and supervisors; the women are employed, or they were before marriage, as secretaries, elementary teachers, nurses, and technicians. Although the occupational achievements of both sexes have been substantial, their aspirations are far above their accomplishments. The men would like to be professionals, or in business for themselves; the women would prefer to be professionals, or married to professional men. The occupational reference groups of the patients include lawyers, doctors, professors, engineers, artists, musicians, and business executives.

Only two class III patients—both female—were satisfied occupationally; one was a psychoneurotic and the other was a schizophrenic. The story of the schizophrenic will be outlined to illustrate how this woman's aspirations were linked with her emotional problems. She struggled, over a seven-year period, to work her way through college and a year of graduate school. She obtained a job as a research assistant as soon as she finished her studies. She liked her job, but she was very dissatisfied with the pay and the fact that she saw books, not people. She was forced, by her low salary, to live with several girls, when she desired an apartment of her own, social life, and male friends. She realized her educational and
occupational goals, but they did not provide
her with the things she thought they would.
She became anxiety-ridden when she saw
that the social goals she had hoped to
attain through her long struggle for an
education were beyond her reach. Shortly
after she realized that her education and
her job did not solve her personal-emotional
problems, her ego structure collapsed, and
she experienced a psychotic episode.

This woman felt throughout her life that
she was handicapped severely by her family
background. She aspired to a higher status
than the one ascribed to her by her family of
orientation, and she struggled to achieve
a desired social position through education.
In the end, she was trapped by her failure
to utilize her educational achievement to
solve her emotional needs in the social
sphere.

Class V. The class V patients, both
psychoneurotics and schizophrenics, were
either semi-skilled or unskilled workers.
They felt their jobs were unsatisfactory;
they worried about how long they would
last, the nature of the work, that they did
not pay enough to meet the needs of their
families, that there was no advancement,
that the job carried no status, and so on
through a long series of specific irritations.
The jobs they aspired to were relatively
modest ones, such as stationary engineer,
machinist, a foremanship, clerical work.

Significantly, not a single class V patient
realized his occupational aspirations. As a
group, they were aware of the connection
between good jobs, steady jobs, jobs that
paid a living wage, and a dreamed-of stand-
ard of living. Occupational aspirations
were stronger among the class V women,
both patients and spouses of patients, than
among the men. Apparently, they visual-
ized the connection between education, jobs,
and mobility better than the men. About
one-half of the men hoped for a steady,
semi-skilled factory job; the remainder
dreamed of skilled jobs. Their wives, how-
ever, wanted more money, shorter hours,
higher status jobs for their husbands, and a
"better shake for the kids."

DISCUSSION
Vertical mobility has been shown to be
a factor of significance in both schizo-
phrenia and psychoneurosis, in the rep-
resentative samples of two classes of the
New Haven population. This does not neces-
sarily mean that mobility is the only, or
even the principal, causative factor. Nor
is there any information here concerning
how this factor may contribute to mental
abnormality. It seems clear, however, that
the relations between status striving, anxi-
ety, and mental health, deserve further in-
tensive investigation.

SOCIAL STATUS DIFFERENTIALS AND THE RACE
ATTITUDES OF NEGROES *

FRANK R. WESTIE AND DAVID H. HOWARD
Indiana University

This paper reports some of the more
salient findings of the second study
of a projected multi-phase investi-
gation of the relationship between social
status differentials and attitudes in the
realm of intergroup relations.

* The authors express their appreciation to the
Indiana University Foundation and to the Graduate
School of Indiana University for financial aid in
connection with this research. We also wish to
thank Dr. Albert K. Cohen and Dr. Erwin O.
Smigel for their criticism of this paper.

The first study,1 the field-work for which
was conducted in Indianapolis during 1950,
involved the assessment of the attitudes of
Whites of varying socio-economic status
toward both Negroes and Whites of vary-
ing status. The present study, the data for
which were gathered in Indianapolis during
1952, is to some extent a mirror-image of

1 Frank R. Westie, "Negro-White Status Differen-
tials and Social Distance," American Sociological