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ABSTRACT

The document describes a project (with an initial sample of 384 Ss and a followup sample of 200 Ss) to develop improved measures of occupational and social functioning of mildly retarded young adults in their postschool environments. Section I provides background information on the project and a project overview. The first part of Section II describes the major instrument development activities completed in the pilot year. Other parts of Section II focus on the selection and composition of the several testing samples, data collection procedures, and examination and revisions of the rating scales and analyses of the interrater and stability of these ratings. Section III looks at the status of the mildly retarded young adults in terms of their employment and social living activities, goals, and expectations as reported in the interview questionnaire. A fourth section reports the keying procedurs for the Forced Choice Inventory (FCI) and the interrelationships among the FCI scores and indices of Ss' vocational achievement and postschool socialization. changes and constancies in FCI statement preference scores over a followup period are reported. A final section offers a recapitulation of findings particularly as they relate to broader considerations of the needs and problems of young mildly retarded adults and to improvement of training and habilitation services for this population. Cited among findings are that approximately half of the Ss living at home indicated dissatisfaction with their present living arrangements and nearly all said that they wanted to be on their own; that the unemployment rate for the Ss' parents was about double of that for the general population; that a problem cited by respondents as relating to employment was transportation, and the ability and independence in getting around; and that data supported the appropriateness of the FCI format and content for administration to mildly retarded populations. Appendixes include instructions for administration of the Forced Choice Self Description Inventory, guidelines and a sample copy of the general information questionnaire used for the fourth interview of the community adjustment followup sample of former special education students, a multiple criteria rating scale of community adjustment, a table of occupational levels assigned to reported employments, and copies of generalization keys for male and female versions of the FCI. (SBH)

AUTHOR'S ABSTRACT

The major project task was the development, keying and validation of a paired comparison Forced Choice Self Report Inventory (FCI) designed to measure the personal and interpersonal behaviors, attitudes, values, and beliefs of mildly retarded young adults. The FCI was empirically keyed using a multistate sample of 384 former special class students identified (principally by their counselors) as either successfully or unsuccessfully adjusted. Male and female FCI item and statement preference scores were cross-validated, using an additional follow-up sample of 200 mildly retarded students. In addition to their FCI testing, all subjects were interviewed regarding their vocational and social living experiences and expectations subsequent to high school.

The FCI data analyses revealed moderately high, two-week retest reliability coefficients (around .80) for both item and statement preference scores. Item score-rating criteria r's were around .70 for the keying samples shrinking to around .50 for the cross validation sample, accounting for approximately half of the reliable criterion variance. Corresponding coefficients for the preference scores were less satisfactory but neither score was predictable from in-high school FCI administrations.

More generally, the data demonstrated that the FCI paired comparison format was clearly manageable by mildly retarded adults and can be used to obtain direct, reliable, and relevant data concerning their behaviors, attitudes, values and beliefs. Granting the importance of social-personality variables for community adjustment, it was recommended that the FCI procedures be extended to measurement of specific personality constructs believed to be directly related to adjustment variables, particularly to those variables believed responsive to treatment.

A further conclusion based on the extensive interview description is the importance of the family's "support" role in determining a member's post school community adjustments.

PREFACE

The problem posed to the writer some four years ago went something like "How might you measure the community adjustment of mildly retarded young adults, how well are former special class students doing in their post high school world?" In large part the question was born of a need for criterion measures for evaluating an on-going high school work study program. But the question has legitimacy for the much broader concerns of why some persons "succeed" and others "fail" and what to do to reduce failure. Answers in part reside in the definition of "what community adjustment is."

The problem of defining anything is essentially one of gaining a consensus, an agreement among users of that "thing". The definition must meet the general expectations of those users who, on an implicit level, at least, already "know" what that "thing" is. For more obtrusive or more simple "things" this consensus is readily obtainable from a polling of users. For other less denotable, more faceted "things", a convincing argument is needed. In the social sciences this argument frequently proceeds from an "opening out" of the to-be-defined thing; a determination of its parts and internal relationships? Another recourse is to exhort the fruitful consequences of adapting some particular definition, not the least of which is simply that we can then get on with the job. The most popular recourse is to leave the thing undefined, in effect to swing with an all-inclusive "everyman's" definition. The definition of Community Adjustment of retarded adults seems to have been so left, that is, swinging.

It is widely (and wisely) acknowledged that the development of procedures and instruments for measuring a variable of interest depends on how that variable has been defined. The project reported here is an attempt to get on with the measurement problem ahead of definition, at least, ahead of explicit definition. Starting with the premise that extremes are most reliably identifiable, or, in the present instance, that counselors working with mildly retarded adults can differentiate their more successfully from their least successfully functioning clients, the measurement task essentially became one of looking for differences between these two client groups. In the present project, the measurement emphasis narrowed to examination of the social and job performance attitudes, beliefs, values, and success attributes held by our young adult retardates. The measurement procedure became a paried comparison forced-choice description inventory (FCI).

The succeeding sections of the report tell just what was done and with what yield. The extensive reporting of recent and current status of our subjects, comprising nearly half of the report, was due to the enormity of data provided by follow-up interviewing. It could have been much longer; the winnowing of reports of the post school lives of nearly 600 individuals into manageable summary is a necessary but never satisfying reduction. The considerable detail presented in this report is included that it may serve as [illegible] continuing research.

The writing of this report has been a long, drawn-out task for its author, a task of encompassing a roomful of ever-interesting interview and test data, data which continually invited further questions, and summarization, a task difficult to conclude because its findings were not as definitive as expected. But that is the risk, if not the nature of exploratory test development and/or follow-up studies.

Acknowledgements for completion of project activities are due many persons. Foremost among these is the report co-author, Daisy M. Reed who took on a very considerable challenge of first organizing and then stripping, and then collating, then summarizing and interpreting the bulk of the follow-up data. Her absence these past several months especially highlights for me her very considerable contribution in the preceeding years.

Earlier project personnel include Carol Moffett and Bob Talbott, without whose extensive professional committment and concern the data collection tasks would have been wanting. A hearty acknowledgement is due the project's data analysts and computer programmers, Tom Heiry and Bernie Corrigan, who patiently attended to analyses and re-analyses of the data, particularly their remembering of so many special data idiosyncracies and sample and FCI keying changes. Similarly, the project was especially fortunate in recruiting its chief project data-collectors: Barbara Kristal of San Jose, California; Cecelia Crawford of Columbus, Ohio; Charlotte Wellman of Portland, Oregon; Mike Greenwald of Madison, Wisconsin; Lexine Killian of Reno, Nevada. And Debbie Toobert, both here in Eugene and in Salem, and Portland, Oregon, California, Nevada and Ohio.

Appreciation is also given to the school and rehabilitation and University personnel who assisted project efforts at various times and places; in particular to: Ben Arthur at Salem, Vernon Thomas and Dick Sonnen at Portland, Paul Killian at Reno, Al Butler at Madison, Henry Leland and Barbara Edmonson at Columbus. And to Andy Halpern, Director of the Mental Retardation Research and Training Center at the University of Oregon, whose support initiated the pilot study for this research and to Isabelle Littman who was project associate during the pilot study year.

And last, but particularly appreciated, are the several hundred young persons who graciously and patiently contributed the data for this report. It was in their interest that this study was undertaken, though the distance between report writing and improving the welfare of the handicapped remains much too wide.

TITLE PAGE

Final Report

Project No. 443CH 50403
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MEASUREMENT OF COMMUNITY ADJUSTMENT OF MILDLY RETARDED YOUNG ADULTS

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U.S. DEPARTMENT OF
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Office of Education
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I. INTRODUCTION

A. Background: The writings on community adjustment of the mentally retarded adult span the century and afford an exciting reading of changing professional opinion, more favorable prognosis, and a more active and humanistic response of achievement of satisfactory community living for retarded persons. Concomitantly, this evolution in philosophies ushered in reforms and changes at all levels of education, training and counseling for the retarded. These changes have included both reorganizations of delivery systems (tracking, segregation, and now mainstreaming) and introductions of innovative teaching methods and of specialized curricula in vocational, social learning, and life skills areas.

Though the major purpose of special training and vocational programs for the educable retardate is their preparation to optimally adjust to post school environments, procedures for identifying and assessing the determinates of this adjustment have been seriously insufficient. A companion assessment problem has been defining community adjustment. How is community adjustment manifested? What are the events, actions, situations, personal skills, habits and attitudes which denote the successful low ability person? Aside from the overlong and non-agreeing listings prepared by experts, what are the actual operating differences between those succeeding and those failing?

The recent history of notable literature reviews (Windle, 1962; Goldstein, 1964; Wolfensberger, 1967; Cobb, 1972; McCarver and Craig, 1974; Begab and Richardson, 1975; Bolton, 1976; Rosen and Kivitz, 1976, etc.), is an uncomfortable reminder of our unsatisfactory basis for both remedial program development and program evaluation. Heber's conclusion in 1959 that:

> There is a great need for research directed toward a determination of significant variables related to the ultimate personal, social, and vocational adjustment of the mentally retarded. Then, and only then, will we be in a position to carry out research evaluation of various kinds of educational treatments designed to accomplish favorable modifications of these significant variables. (Heber, 1959)

appears just as valid today as 19 years ago, both on the more specific program evaluation level which noted by Brolin (1975) and on the definitional question as to what constitutes successful community adjustment raised by Edgerton and Bercovici (1976).

The guiding project goal of the research to be described in this report was the development of improved measures of occupational and social functioning of mildly (educable) retarded young adults in their post school environments. The main project activities carried out under this goal were the development of a forced choice self description inventory keyed to differentiate successful from non-successful post school mildly retarded young adults and the examination of change & stability in these self descriptions over an immediate post high school period. However, extensive interview data describing the young adult retardate's vocational and social activities, goals, and expectations were also collected. The testing program involved nearly 400 mildly retarded young adults living in various communities in the central and western United States and another 200 who were followed up through their first year and a half after leaving high school.

The project's measurement focus on intrapersonal factors as determinates of community adjustment finds general support in the research of theorists such as Heider (1958), Rotter (1954), and Feather and Simon (1971) who insist that consideration of personal values and goals is critical to an understanding and prediction of behavior. More particularly, in the area of mental retardation, the central importance of attitudinal and personality factors in the adjustment of the retardate have been stressed by a number of researchers (Weaver, 1946; Sarason, 1953; Penrose, 1963; Edmonson, et al., 1971, Haywood, 1970; Heber and Dever, 1970). The factor analytic study by Stevens (Stevens and Peck, 1968) used 141 distinct criteria of success with a heavy emphasis on psychological measures of personality. Though this most extensive study found statistically valid relationships between some personality measures and criterion factors, it fell far short of establishing substantive, predictively useful determinates of adult adjustment. Gold (1972) in his comprehensive review of vocational habilitation research notes that the literature consistently reports the retardate's failure in competitive employment for reasons of inability to handle social situations in the work settings rather than work skills per se. His more general conclusion is that "current prediction and evaluation procedures as they are presently conducted are not very successful," (ibid, p.43). Zigler and Balla's (1977) current review of personality factors affecting the performance of the mildly retarded stresses their importance in clinical assessment. These reviewers cite nearly 100 studies in their consideration of such personality factors as expectancy of failure, motivation, incentive selectivity, outerdirectedness and positive and negative reaction tendencies.

Of special interest is Rosen, Clark and Kivitz's volume (1977) describing the interrelated research and rehabilitation efforts at Elwyn Institution. Their follow-up study of discharged patients utilizing a substantial number of criteria and predictor variables, however, yielded few criterion-predictor relationships. Factor analyses results, though initially promising, were generally unsupported by two later cross-validation studies. The writers conclude by advocating increased consideration of personality variables as predictors and report innovative personality measurement procedures.

B. Project Overview: The research to be described in this report was first piloted in 1971-72[1] and then funded in the summer of 1974 as a three-year test development research project focusing on the measurement of community adjustment of mildly retarded adults. The project strategy was to develop an empirical measurement base for describing community adjusted persons by comparing the successful with the unsuccessful. The project rational was that this community adjustment may more assuredly be determined from those actual behavioral and attitudinal differences between more successfully adjusted and less successfully adjusted persons than from popular usage or professional consensus. Essentially, this approach involved: (a) an initial identification of high (successful) and low (unsuccessful) groups using adjustment classifications derived from ratings made of their current community living by their vocational counselors; (b) comparing the responses of these two groups to a broad spectrum of behavioral

[1] Supported by the Research and Training Center for Mental Retardation, University of Oregon.

and attitudinal questions; and (c) selecting those questions responded to differently by the two groups. These selected questions would then be developed into a tentative community adjustment inventory. Cross validation and response repeatability checks would be needed to eliminate unreliable and/or chance selected items. After final selection the content of the inventory would be examined to identify behavioral or attitudinal self descriptors and relate these to treatment requirements.

This report describes the implementation of that strategy which together with a broader data collection effort, constitute the project's effort to describe and measure community adjustment. The report is organized into three larger sections followed by a summary section. The first part of Section II, Procedures, describes the major instrument development activities were completed in the pilot year. The middle portions of that section describe the selection and composition of the several testing samples followed by an accounting of the data collection procedures. Examination and revisions of the rating scales for use by interviewers and analyses of the interrater and stability of these ratings is described in the final portion of that section.

Sections III and IV present the analyses of the main body of project data, Section III focusing on the "Status of the Mildly Retarded Young Adults" in terms of their employment and social living activities, goals and expectations reported in the interview questionnaire, and Section IV reporting the keying procedures for the Forced Choice Inventory (FCI) and the interrelationships among the FCI scores and indices of the subject's vocational achievement and post school socialization. The fourth section also includes an examination of changes and constancies in FCI statement preference scores over a year and a half period for subjects who were followed-up after leaving high school. The Summary Section offers a recapitulation of project findings and how these may relate to broader considerations of the needs and problems of the young mildly retarded adult in our society and to improvement of training and habilitation services for them.

II. PROCEDURES

A. Instrument Development

1. Instrumentation Search: The pilot project began with the results of an extensive literature review of criterion variables employed in studying the community adjustment of mildly retarded persons. The review included over 600 articles, project reports, monographs, and other papers published over a 50 year period (Halley and Halpern, 1972). A screening of these sources to include only materials involving adult age groups or follow-up samples of adolescents, outcome rather than predictor measurements, and experimental rather than theoretic information reduced the total "source pool" to 99 studies, in turn produced over 600 variables used in the measurement of community adjustment. After an initial classification of these "outcome" variables into one of three broad fields, "personal," "socio-civic," and "vocational," each variable was then separately examined and more narrowly classified according to constructs integral to it. This cataloging of outcome variables yielded 44 variable clusters of which seven were organized under the heading of Personal Adjustment, 12 under the heading of Socio-Civic Adaptation, and 25 under the heading of Vocational Adjustment.

Conjointly with the examination of the above results, a number of more current instruments used to describe the social and vocational adjustments of retardates were also carefully examined. The Adaptive Behavior Scales at the Parsons State Hospital (Nihira, 1969a, 1969b), though prepared more specifically for institutional populations, is especially noteworthy as an example of a major scale development project with continued expanding development.[1] Starting with a pool of 325 behavioral items and 307 patients independently classified by staff psychologists according to a general schema defining five levels of adaptive behavior, items supporting these discriminations (as well as having high inter-rater agreement) were retained and organized within appropriate age groupings. Additional items, 2500 critical behavior incidents collected from 60 teachers, 58 psychiatirc aides, and 158 day care center attendants reporting from various midwestern states.

In developing the Adaptive Behavior Scale, items were divided into two broad domains of behavior, those attributable to lack of skills and abilities and those referring to emotional and conduct disturbances. The first of these domains contained 272 items grouped into 10 sub-domains, the second, 265 items grouped into 12 sub-domains. This 537 item checklist was subsequently administered to 1230 institutionalized retardates from three state institutions representing all IQ ranges, ages 7 through 55 years. Factor analyses of these data (principal component extraction with varimax rotations) for four age groupings revealed three salient dimensions repeating for the different age groups. The first factor, Personal Independence, involved those skills and abilities required for maintaining

[1] An Adaptive Behavior Scale is currently being developed at Ohio State University by Leland for use with very young children (HEW BEH Project G00-76-04396)

independence in daily living (i.e., independent functioning, physical development, language development, number and time concepts, economic activities, occupationals skills, socialization, self direction, and autonomy). The second factor, Social Maladaption, was defined by such behavior domains as destructiveness, rebelliousness, untrustworthiness, anti-social behaviors and manners, and negative attitudes towards one's social environment. The third factor, Personal Maladaption, was defined by more intra punitive behavior domains such as socially unacceptable manners, stereotyped behaviors, and self abusive behaviors. One major conclusion resulting from the factor analytic studies was that multidimensionality is required for describing a retardate's behavior characteristics. Profile reporting was recommended as minimum for summarizing the Adaptive Behavior Levels of individuals or groups.

As revised AB scale (Nihira, Foster, Shellhass & Leland, 1974) was further modified and standardized for public school use by Lambert and her associates (Lambert, Windmiller, Cole, and Figueroa, 1975), involved a large sample of 7-13 year old school children in regular, educable mentally retarded and trainable mentally retarded classrooms. Lambert and Nicoll subsequently reported (1976) an analysis of the dimensions of adaptive behavior of school children from these three classrooms. Similar factor structures were found for the retarded and non-retarded public school children from these three classrooms. Similar factor structures were found for the retarded and non-retarded public school children and for the three age groups studied. The authors' conclude that the factor structure for adaptive behavior is independent of age and school classification. They further suggest that the AB scales "... define behavioral attributes associated with adaptation to the school environment, interpersonal behavior and intrapersonal stress." (ibid, p. 145.)

The Community Adaptation Schedule was developed for an adult non-retarded population (Roen and Burnes, 1968). The authors describe the CAS as "objective and standardized criteria relevant to the intervention goals of community mental health" and suggest that its "questions define operationally what is meant by the concept of mental health" (ibid., p. 1). The Schedule consists of 217 questions dealing with a "person's perceptions of the community, affects toward it and behaviors in it." The questions are organized into six chapters and 33 subsections dealing with work, family, social life, larger community activities (recreational, religious, educational, etc.), commercial functioning, and interactions with the professional community.

The administrative procedures require persons only to answer those sections relevant to their particular circumstance; for example, unemployed persons skip some sections; persons responsible for home care, other questions, etc. In effect, only 114 of the 217 questions are to be answered by all subjects. Though the CAS appears to be a carefully organized and extensive coverage of many aspects of community living, interpretations of section scores are perforce equivocal given the apparent geographically restricted and far-from-ample norming samples. A further problem is that of possible bias in self description.

Efforts to use the CAS with retarded adults have had only minimal success. Hammerback (1969) tape-recorded the questions to simplify the reading task in using the scale with a sample of young adult retardates. His dependent measures were rankings of general success in the young adult retardates' adjustment as judged by vocational rehabilitation counselors. Excepting scores from the section "commercial community" (shopping, transportation, finances, etc.), none of the CAS scores appeared related to this criterion. Romo (1970), using a similar age group of retardates, examined the predictability of CAS items, employability, and job stability. Though he identified 48 of the 217 items as useful in predicting one or the other of his criteria, very few items predicted both scales. Further, items apparently "worked" differently with different subsamples (i.e., urban vs. rural, male vs. female, higher IQ vs. lower IQ). Apparently considerable uniqueness resides in the CAS items, that is, the interpretability of responses varies with the sex, urban dwelling, and IQ (within the 50-80 range) of the respondent.

The Home Community Follow-Up Questionnaire (HCFQ) was developed as an interview guideline for determining the social and vocational adjustments of former institutionalized young adult retardates (deJung & Crosson, 1968). In developing the HCFQ, an initial pool of approximately 1000 behavior description statements formed from extensive examinations of custodial and rehabilitation institutional evaluative reports and interviews were reduced through "content sorting" to 187 behavior statements and organized into 16 content categories. These categories were: compliance; appearance; social penetrance; tenacity; self control; peer relations; verbalness; sexuality; self vs. other directiveness; social maturity; peer affinity; self-image; interests and initiative; self confidence; conformity; and flexibility. Two positive and two negative statements were then selected for each category representing high and lower levels of adjustment. Following a pretrial these 64 statements (four in each of 16 categories) were further reduced and reorganized under three major headings: social responsiveness, social conformance, and social activities. The latter heading included a broad range of behaviors requisite for social acceptance and independent community functioning such as personal grooming, communication skills, and economic self management. In its final form the HCFQ follows a check list format with "lead" questions to be asked by the interviewer and alternate responses to be checked off, according to the interviewers' interpretations. As used with 83 young adult expatients in its initial trial, very similar responses were recorded during interviews with either the expatient, his at-home adult, or his employer. Similarly, little difference was noted between responses to questions dealing with present or expected performance. Generally most expatients were described as adequately behaving in response to most HCFQ questions. Possibly the sample was too undifferentiated in this regard. A "simpler explanation" is that the HCFQ items and recording format (surely permitting interviewer bias) is insufficiently sensitive and/or comprehensive in its present form.

A further home and community behavior instrument specially designed for retarded adults was reviewed during the earlier project months of procedural formulation. This was the Social Activities Questionnaire prepared by Edmonson (1974) for administration to

retardate adults living in the community . In developing her instruments, Edmonson followed the broad rationale and methodology for studying relationships between behavior and social settings advanced by Barker (1968). In her study both an illustrated 48 page daily log and a 70 item, 16 page Social Participation Questionnaire data reporting format were devised and field tested, the latter being selected as the more reliable and efficient procedure.

In addition to providing detailed descriptions of the retardate's current day-to-day social and work engagements, Edmonson's data provided several summary measures of the variability and adequacy of the retardate's at home and outside-of-home activities and social interactions and of the levels of responsibility which he assumed in his outside-of-home activities. Positive correlations were obtained between their vocational counselor's ratings of social competency and the frequency of outside-of-home performances (r = .65) and the subjects level of responsibility scores (r = .40) and a negative correlation (r = -.57) with frequency of at-home performance. Though her sample was limited to only 25 adult retardates (ages 19 to 25) living in private residential settings, these moderate relationships suggest both a reliability of the reporting procedures and a relevance of the contribution of these variables to the broader construct of social competency. Beyond these relationships, both procedures, though more particularly the dairy with its day to day reporting, provided a very rich statement, hitherto unreported, of the kind of incidence of social encounters and activities comprising the living of the retardate.

The Minnesota Work Adjustment Studies (Loftquist and Dawis, 1969) initiated in 1959, spawned a number of promising predictor and criterion measures of work adjustment variables. The theoretic frame guiding the research proposed three basic outcomes or dependent variables: tenure, satisfaction, and satisfactoriness. Considering that the relevant characteristics of the person and the work environment were relatively stable, the theory's basic assumption was that individuals "seek to achieve and maintain correspondence with their environment." (Dawis, Loftquist, and Weiss, 1968, p. 3). Three parallel instruments were developed to measure satisfactions, needs and reinforcer systems, the Minnesota Satisfaction Questionnaire (MSQ), the Minnesota Importance Questionnaire (MIQ) and the Minnesota Job Description Questionnaire (MJDQ). The MSQ is a self report Likert rating scale that asks the respondent to rate his/her satisfaction with different job aspects with respect to 20 reinforcer dimensions such as activity, advancement, creativity, security, variety, etc. A short form of the MSQ is scored on three satisfaction scales, intrinsic, extrinsic and general.

The MIQ (Gay, et. al, 1971) is comprised of 210 paired comparison items measuring the respsondent's preferences to these same 20 reinforcer dimensions. Each item is phrased in terms of the importance of specific reinforcers to the respondents in the kind of job he/she would most like to have. The MJDQ is a ranking instrument completed by job supervisions to describe reinforcers in the work environment. The MIQ and MJDQ yield parallel profiles which can be compared to provide indices of correspondence. Satisfactoriness measures were similarly developed by the project.

The Minnesota work adjustment theory scales have been used to a limited extent with retarded populations. A revision of the Minnesota Importance Questionnaire for use with mentally retarded persons (MIQ Form 5)

was reported by Lofquist and Dawis (1970). Brummer (1973) included this revision in examining the affects of a paid work experience on the vocational needs and interests of mildly retarded young adults. Clark, Kivitz and Rosen (1968) report the employment satisfaction scales to be a useful and reliable proceudre though paraphrasing of some questions is necessary. Halpern, et al. (1975) noted that though the Minnesota Theory of Work Adjustment has practical implications relating to definition of work adjustment, evaluation, training, counseling and placement, the theory "is basically a placement model, and, as such, a static model of vocational adjustment." (ibid., p. 367.) A more general limitation of the work adjustment scales is, of course, it restricted focus on work itself. As Rosen and Kivitz (1976) have well argued, the prediction of community functioning needs to include a much broader consideration of societies' demands and of the retardate's ability to cope in a variety of social situations. These authors emphasize the need to develop a procedure to sample areas of relevant personality functioning such as "helplessness," acquiescence, motivational defects, and low self esteem.

Together, the foregoing several instruments are illustrative of the continuing and widely divergent approaches toward measuring the adjustment of retardates. Though suggestive, these studies were far from definitive for selecting specific content for judging community adjustment of mildly retarded adults; clearly they include far too many emphases for any single instrument. The researcher was still left with much discretion for a starting content selection.

Prior to the development of the project's intended community adjustment instrument, consideration was also given to the more current "field" emphases in community adjustment. A field survey instrument was prepared containing 90 brief behavior statements assembled to encompass the various behavioral emphases represented in the list of 44 variables clusters (Halley & Halpern, 1972). To simplify reading, these variables were rephrased as brief statements or phrases such as "arrives at work on time," "shares attention with others," or "drives a car." A number of behavioral statements were taken directly from the HCFQ; others were modifications of CAS and the Adaptive Behavior Scales questions; others were simply "created" to fill apparent "gaps" in coverage.

The 90 item survey instrument included 26 items relating to general functioning in the community (carrying on essential functions related to daily life, i.e., maintaining casual contacts, handling money, keeping healthy, etc.), 19 items dealing with socialization (displaying mature behavior, understanding and abiding by society's rules, functioning independently), 21 items dealing with inter-personal relations (obtaining satisfaction from contact with other people), and 24 items dealing with vocational skills (displaying appropriate work behavior as well as efficiency on the job). Items were to be judged by the respondents as to how important it was that this information be obtained "when evaluating how well a young retardate is adapting to community life": 5 = "absolutely essential," 4 = "major contribution," 3 = "good to have but not essential," 2 = "minor contribution," and 1 = "unnecessary".

The survey was distributed, principally by mail, to professional educators, counselors, and researchers working with retarded adults in the Eugene and Salem areas and to non-professional persons (principally parents) in the Eugene area. Twenty-eight surveys were completed. Apart from gauging current field emphases, a critical project concern was that in developing interview probes and/or test questions some areas of behavior may be overlooked and not be considered. Accordingly, respondents were requested to write in additional behaviors which they believed should have been included. This addendum instruction was responded to by about a fifth of those surveyed in terms of suggestions for further emphases regarding sex education, family planning, managing money, nutrition, and recreation.

The distribution of importance ratings given the 90 items revealed very high agreement among the educators, counselors, and research groups as to the relative importance of the various behaviors.[1] Rank order correlations computed between average importances for the 90 items by the three groups were all in the high .80's. Considering the very crowded distribution of average ratings with many ties which, in itself, works to lower the Rho coefficients, these values allow for little disagreement among rater groups.

Even more interesting were the generally high ratings of importance given most of behaviors on the listing indicating very broad and inclusive demands on the part of the respondents for client information. Practically two thirds of the 90 items were considered by half or more of the resposndents to be either "absolutely essential" or a "major contribution" in judging "how well the young retardate adult is adapting to community life." None of the respondents deferred from group opinion of imortance in their consideration of over half of the items. The average importance rating for all 90 items was 3.7 or very nearly the rating of "major importance." Not one item received an average rating of as low as "minor contribution." Only two items, one dealing with "owning a car" and one with "having children," were judged "unnecessary" or affording only "minor contribution" by as many as half of the respondents. On the average, the respondents rated a behavior as unnecessary only 2.2 times out of a possible 90.

More generally, it might be concluded that few respondents were willing to say, in effect, "no, not important" to more than a very few of the 90 behaviors offered. Again the researcher was left with much to select from in developing his instruments.

2. Forced Choice Self Description Inventory:

Preliminary interviews with potential subjects were conducted to examine the availability and scope of information regarding the young retardate adult's personal, social, and vocational behaviors. During this prelimanary interview period various response-eliciting procedures were developed and tried. These generally did not appear promising, and it became questionable as to whether an intensive interview procedure to widely probe for possible problems and/or successful activities could, in fact, be developed which would be both flexible enough to follow different emphases for different clients and yet uniform enough to produce

[1] These distributions are available upon request to the principal investigator.

cumulative (across subjects) data. Difficulties with the interview probe procedure were also anticipated in that some of the clients might, at best, provide only stereotypic or acquiescent responses. For these reasons and in the interests of simplicity and brevity of testing time, an initial project intent to rely chiefly on the intensive interview procedure for revealing differences between successfully and non-successfully adjusted clients was abandoned. Instead, a highly structured self description inventory was developed as the central project data collection instrument.

The Forced Choice Self Description Inventory (FCI) was initially conceptualized as a procedure for examining the respondent's feelings and concerns regarding his reputation, what he believed might be "fairly" said about him. This focus on perceived reputation evolved from the supposition that a person's awareness of how he appears to others is critical to his continued satisfying those others in the sense of his being well regarded, received, and accepted by those others, and that his acceptance by others was, in turn, critical to successful community adjustment. A paried comparisons procedure was adopted for eliciting the subject's self description to avoid the skewed, non-discriminating rating or preference responses typically obtained from instruments which require respondent consideration of only one statement at a time. Essentially the paired comparisons procedure posed two generally desirable, plausible, self descriptive statements against each other with the instruction to the subject, "Choose the statement, A or B, which is more fair to say about you." In response to early concerns regarding the equivocal and perhaps too abstract meanings of "fairness," the instruction was reworded to "Pick the statement, A or B, that is more like you."

Four general headings for organizing common daily living activities were used as guidelines in preparing the initial statements for possible inclusion in the FCI. The first of these headings or content domains dealt with the subject's General Social Orientation and Conduct, his personal rules or guides for behavior. The alternatives stressed role preferences and pay-off beliefs in interacting with other persons. The second domain, Self or Personal Care, included such emphases as cleanliness, tidiness, grooming and general health. The third domain, Managing Money, included emphases on spending, saving, borrowing, and more generally, the valuing of money. The fourth domain, Work Orientation, included emphases on work ethic, motivation, achievement, capability, respsonsibility, effort, and on-the-job relationships. Using each heading as a content guide, a starting pool of nearly 100 brief statements were written.

An additional fifth heading, Values and Goals, was added to include more general behavioral determinates such as self reliance, dependence, insecurity, and need for affiliation which not covered under the first four headings. The instruction for responding to these "value" items was reworded to, "Pick the statement, A or B, that you feel is most important for you to have a good life." Alternatives included such phrases as, "having a steady job", "having lots of friends", and "having good luck".

A further sixth heading, Attributions of Success[1], was finally added to include a more general, non-self focused description of what the subject believed was most important for "making it" in the community. The instruction for responding to this last set of "success" items was reworded to: "Pick the statement, A or B, which you feel is more true of persons who succeed or get ahead." Alternatives included such phrases as, "because they worked hard," "because they know how to do things," and "because they had good luck."

The forced choice format was principally selected to counter problems of low level of responsiveness among subjects. Traditionally the paired comparison procedure requires that all stimuli or statements be posed as alternatives against all other statements. However, since a large number of statements covering several areas of community living and socialization were planned for the Forced Choice Inventory, it was neither logical (in terms of juxtaposing of content), nor practical (in terms of the very large number of pairings required; i.e., matching each of 20 statements with each other would require 190 pairs, matching each of 25 statements, 300 pairs, etc.). Trial administrations revealed that even subsets of as few as 10 statements, each matched with each other (creating 45 paired comparison items), were administratably objectionable due to the monotony of repeating each alternative statement nine times.

Revision of the FCI into smaller subsets of statements requiring no more than 5 or 6 repetitions appeared necessary. Essentially, this was accomplished by forming subsets of statements within each content domain and removing the more clumsily worded and repetitious statements. The final FCI consisted of twelve subsets of statements of six statements each two subsets within the Personal Care, Managing Money, Social Orientation, and Values domains, three subsets within the Work Orientation domain and one subset within the Attribution of Success domain for a total of 72[2] statements. These 72 retained FCI statements together with their lead statements are presented in Table 1. Aside from omission of some more specific behavioral referrents such as "electoral duty," "work speed," "safety," "earnings," and "occupational level," the content developed under these four headings appeared to cover, though with unequal emphasis, the 44 variable list developed by Halley and Halpern, 1972.

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[1] This latter addition was based on an independent exploratory study of achievement motivation and imputed causes of success and failure (Talbott, 1975).

[2] Though this coverage was not deliberate, neither should it be construed as coincidental. As earlier noted, the 44 variable list as well as a number of current adjustment scales had been examined by the project staff. Their collective influence on the development of the FCI is indeterminate.

Table 1

LISTING OF 72 STATEMENTS USED IN THE FORCED CHOICE SELF DESCRIPTION INVENTORY

GENERAL SOCIETAL (Lead Question: Which statement, A or B, is most like you?)

Subset 1

1. You like to feel useful
2. You think a person should get what he can
3. You always try to follow the rules
4. You feel that luck counts a lot in making it
5. You trust most people to be fair
6. You don't need to follow the crowd

Subset 2

7. You believe in helping others
8. You believe in evening the score
9. You think people should admit when they're wrong
10. You like your friends to help you decide things
11. You believe it's up to you to "make it" or not
12. You'd like to be the leader whenever you can

SELF CARE (Lead Question: Which statement, A or B, is most like you?)

Subset 1

13. You keep your room clean
14. You take enough showers
15. You like to wear what's in style
16. You don't like to dress like everyone else
17. You are pretty healthy
18. You know how to keep yourself fit

Subset 2

19. You generally look stylish
20. You pick up after yourself at home
21. You take good care of yourself
22. You try to look clean and tidy
23. You always seem to have plenty of energy
24. You try to look different from the crowd

MANAGING MONEY (Lead Question: Which statement, A or B, is most like you?)

Subset 1

25. You don't like borrowing money
26. You know how to save some money
27. You know that money's important, but not most important
28. You are surprised when you run out of money
29. You pay for your own clothes
30. You don't need advise on how to spend your money

Subset 2

31. You sometimes buy things you can't afford
32. You like help handling your money
33. You save to pay for things you want
34. You borrow money when it's necessary
35. When shopping you usually choose what to buy
36. You'd rather have lots of friends than lots of money

Table 1 Continued:

WORK ORIENTATION (Lead Question: Which statement, A or B, is most like you?)

Subset 1.

37. You are fun to work with
38. You'll quit working when you have enough money
39. You'd like more responsibility at work
40. You don't like it when there's no work
41. You quickly learn how to do your job
42. You do more than your share

Subset 2.

43. You usually get your work done
44. You usually don't mind working
45. When you really know what to do, you don't like being told
46. You'll work hard if they treat you fair
47. You feel you should never do more than you're paid for
48. You like to finish a job so you can show it to someone

Subset 3.

49. You'd rtaher work on something than lie around
50. You like to show how much you can do
51. You try hard to get ahead
52. You feel good when a job is done because you can forget it
53. You usually clean up after your work
54. You are interested in doing your job well

VALUES AND GOALS (Lead Question: Which statement, A or B, do you feel is most important for you to have a good life?)

Subset 1.

55. Having friends
56. Having good luck
57. Being able to do things well
58. Having a steady job
59. Saving for tomorrow
60. Getting help from others

Subset 2.

61. Having money
62. Having other people like you
63. Keeping out of trouble
64. Having someone to turn to
65. Depending on yourself
66. Getting the breaks

SUCCESS ATTRIBUTION (Lead Question: Which statement A or B, is most true of persons who succeed or get ahead?)

Subset 1.

67. They worked hard
68. They had good luck
69. They have been helped by other people
70. They know more how to do things
71. They find it easy to do the right things
72. They are liked by most people

As a test, the FCI consists of paired comparison items of the form "choose statement A or statement B." Since the pairing of each statement within a subset with every other statement in that same subset produces 15 items for a subset of six statements, a total of 180 FCI items was produced from the 72 statements. These 180 items, each typed on a 3 x 5 card and mounted on two large 3" rings, with additional cards with instructions to be read to the respondent (subject), constituted the administrator's copy of the test. Items were to be read aloud either by the examiner or the subject. In administering the FCI, all the items pertaining to a content domain were grouped together in random order but with the restriction that no statements were immediately repeated from item to item. On each item, statement positions, A or B, were arranged so that each statement appeared as A (first) nearly as often as it appeared in position B (second). Since for subsets of six statements, each statement appeared five times, the most even split possible was 3 and 2. The subject's choices of A or B were recorded by the examiner on a two choice IBM answer sheet. The instructions for administering the FCI are included in Appendix A. The administration of the full 180 FCI items varied from approximately 40 minutes to just over an hour depending on the individual subject.

3. Interview Schedule: A broad inquiry Interview Schedule was developed as an accompaniment instrument to the highly structured FCI. In addition to providing demographic and general background data regarding the subjects being tested on the FCI, the interview schedule was designed to describe and, for the follow-up high school samples, to track their past school, vocational and social living experiences. The initial interview schedule for the pilot sample contained some 50 verbatum questions or confirmation probes concerning the subjects' school experiences, work experiences, current living arrangements, family situation and recreation. The interview schedule used with the other four post high school samples contained an additional section requiring the subject to recall the names of five to ten persons of his own age whom he knows well, to compare them as to "how they are doing." At a subsequent time during the interview, the subject was to rate him or herself as to "how she/he is doing" and finally to estimate how his or her counselor would have answered this same question. The interview schedule also contained a "remarks" section to provide descriptions of the resondent's home, appearance, apparent physical handicaps, responsiveness to the interviewer, and conditions under which the interview was conducted such as privacy.

The interview schedule used with the follow-up high school subjects covered three areas: (a) vocational preparation and achievement, (formal and informal) (b) vocational knowledge and expectation (immediately anticipated or intended employments; knowledgeableness of job duties, required skills, working conditions, benefits, as well as longer range vocational intentions,) and (c) social satisfactions and expectations (anticipated continuations or changes in living arrangements, friendships, leisure time activities). The total interview format included two sets of pictorial items (dealing with anticipated activities) and two subsets of paired comparison statements the first dealing with advantages of having your own place and the second dealing with reasons for being popular). An interviewer "remarks" section was also included.

This "remarks" section was adapted from an extensive interview format used by Butler and his associates in their Riverside follow up study, NIMH Grant No. MI-08667 The courteous cooperation of these researchers is appreciated.

The three follow-up interviews included considerable repetition of the original questions with some added inquiries to the subject's responses on prior interviews, particularly with regard to their stated expectations for the between-interview period; the interviewer was to find out if these expectations (concerning employment, recreation, living arrangements, etc.) were realized and if not, why not. The third and fourth interview form also included inquiries as to the subject's spending of money and of their knowledge concerning social support opportunities. An open-ended inquiry regarding social and vocational problems experienced by subjects since leaving high school together with 18 new paired comparison statements relating to "problems" was added to the fourth interview[1]. Though each successive interview schedule contains more questions (the first contained 37 questions, the second, 50, the third, 75 questions, the fourth 79 questions), the time required for administering the entire interview session remained approximately constant partly due to the interviewee's increased familiarity with what is expected of them, and in part to improved interview format and reduced number of FCI items (180 items the first interview, 105 the second, and 100 the third, with 112 to the females and 121 to the males on the fourth). In preparing each successive interview schedule, responses from aproximately 20 of the subject's prior interview questions were copied onto the new interview schedule to permit handy reference (by the interviewer) to each subject's earlier responses, and to permit "fitting" of particular questions to particular subjects (such as asking a subject who earlier had reported intent to move in with a sister if indeed she had, how well it had worked out, etc.). The administration of these follow-up interviews together with the shortened FCI used in the later administrations generally took around 90 minutes to complete. A copy of the final interview is included as Appendix B to this report.

4. Counselor Ratings of Community Adjustment: A three-criterion evaluation (rating) form was developed for vocational counselor ratings of prospective subjects. Though the initial project requirement was simply for counselor identifications of their more extreme "poorly adjusted" and their more extreme "well adjusted" clients (and ex-clients)[2], the general reluctance of consulting counselors to consider and judge all their clients on a single "global" criterion of adjustment rating obliged the use of multiple scales. Three rating scales were prepared, the first requiring judgments of their clients' "integration into his or her community's main stream," the second, "his or her employability" from the perspective of the requirements of potential employers, and the third, the "adequacy of his or her social adjustment" from the counselor's perspective. A reproduction of a sample page of this rating form and instructions to the counselors for using it are included in this report as Appendix C.

The rating proedures required that each counselor develop a personal, three-person frame of reference prior to judging his /her clients, by

[1]This inquiry was developed by Gilbert Foss, David Bostwick and Jerry Harris as part of a study conducted by the University of Oregon Research and Training Center in Mental Retardation. See Foss, et al, 1973, for fuller report of this research.

[2]Though many of these "clients" were closed cases and more properly should be referred to as ex-clients, for reader simplification, the briefer designation of "clients" is used in this report. Once included in the testing and interview samples, these "clients" are referred to as subjects.

selecting among "all former mildly retarded adults with whom he/she had worked the last several years" one client whom he/she considered most successful on all three criteria, one client least successful on all three criteria, and one client moderately successful on all three criteria. The names of these three selected persons were to be entered in boxes at the top right, top center, and top left, respectively, on each page of names of clients to be evaluated.

Judgment of clients were then to proceed by first "matching" a client to a reference person with repect to a particular scale criterion and then to indicate the closeness of this match by marking an X along an unbroken four inch line at the right of each client's name. Each client was first judged on each of three scales before moving on to the next client. Given, that each counselor could recall a large number of clients of varying achievements, this procedure assures an approximate psychological equivalence across different counselors' rating frames.[1]

Because of expressed counselor interest in distinguishing between a client's present functioning and capabilities and his estimated potential for improvement and to reduce possible confounding of these two considerations, the counselors were asked to provide ratings in both contexts, the present and the anticipated future. The former (present context) ratings were made first as indicated above by an X marking on the three criterion lines, after which the future or potential ratings were made by circles on these same lines.

The initial pilot study development of these rating scales involved three state vocational rehabilitation counselors who had been working with former special class students in the Eugene-Springfield, Oregon area for several years. Their counseling "loads" included approximately 50 retarded clients. In addition, the three counselors were able to recall many former clients whom they continued to see and/or hear about. One hundred forty-two clients "well known" to the counselor were rated, 59 by the first counselor, 48 by the second counselor, and 35 by the third counselor. Only clients who were out of school at least one year were retained for the rating analysis reducing the total to 130. This rating sample ranged in age from 18 to 29 years; 75 were male, 56 female.

In recording the counselor ratings, the X's and O's were converted to a point scale by dividing the four inch line into eight half-inch segments, equating the left most extreme as 0 , and eight assigning values of .5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, and 4.0 to X's and circles according to their position on the rating line. The counselors varied somewhat in their use of the different rating scales. Considering X's placed along the right most quarter of the four inch line as indicating that a client was presently functioning similarly to their "most successful" reference person, approximately 24 percent of the counselor A's clients, 38 percent of counselor B's clients, and 17 percent of counselor C's clients were judged clearly successful on one or more of the three scales. Conversely, considering X's placed along the leftmost quarter of the four inch line as indicating clients were presently functioning similar to their

[1] For a fuller description of this procedure see: Gardner & Thompson, 1956.

least successful reference person, approximately 53 percent of counselor A's clients, 35 percent of counselor B's clients, and 30 percent of counselor C's clients were judged clearly unseccessful on one or more of the three scales. The extent to which these differences are due to differences in rater severity or to actual differences in the persons being rated (Counselor C, for example, had more younger clients, most of his rated persons having been out of school less than three years as contrasted with counselors A and B who had many clients out of school four or five years or longer) is, of course, unknowable without further independent criteria data. In terms of the general procedure followed in the project, large differences in rater severity independent of ratee performance would work against finding test or interview question responses discriminating between high and low rated groups. Though this possibility could not be gainsaid at the time, the fact that previous use of rating procedures using reference persons as anchor points has indicated increased interrater comparability (deJung, 1964; deJung, 1966; Gardner & Thompson, 1956) encourages interpretation that differences in clients rather than in raters (counseors) is operating here.

Inspection of the various ratings received by the 130 clients[1] revealed that most-commonly a client rated high (or low) on one scale was rated similarly high (or low) on the other two scales. This interscale rating agreement appeared particularly true for comparisons involving pairs of "present" and "potential" ratings on the same rating criteria. To further examine this interscale agreement, mean ratings and product moment correlations[2] were computed between ratings on the different scales for the 130 not-in-school clients receiving counselor ratings. These data are presented in Table 2.

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[1] This 130 includes seven clients, later identified as out-of-school less than a year and, therefore, dropped from further study.

[2] Unless otherwise stated, all correlation coefficients computed for project data are Pearson product moment.

Table 2

INTERCORRELATIONS OF COUNSELOR RATINGS OF THEIR CLIENTS ON SIX RATING SCALES (N=130)

SCALES			Integration	Employability	Socialization
Present Functioning					
Integration into Community	1.9	1.1	-	.71	.86
Employability	2.3	1.4	.71	-	.56
Socialization	1.9	.12	.86	.56	-
Potential Functioning					
Integration into Community	2.2	1.1	.89	-	-
Employability	2.4	1.2	-	.89	-
Socialization	2.2	1.1	-	-	.91

As might be anticipated, the mean ratings presented in Table 2 indicate higher ratings on the "potential" scales than on the "present functioning" scales. The high, near .90, coefficients indicate practically identical rank ordering of clients on the present and potential scales. Though perhaps of interest for other considerations, the "potential" scales were not further used in the present study, which was concerned with identifying persons in terms of their present community adjustement.

A slightly larger difference in means favoring the "employability" scale is perhaps of more interest. Apparently the counselors viewed their clients as nearer to successful functioning, both present and potential, in the vocational setting than in the broader and less well-defined areas of social adjustment and community integration. The correlations between the three scales ranged from a low of .56 between the two more specifically focused scales ("employability viewed from the employer's perspective" and "social adjustment viewed from the counselor's perspective") to a .71 and .86 between "employability" and "integration into community" and between "social adjustment" and "integration into the community," resspectively. Correlations between the three scales and their combined total were .94, .84 and .89 for the integration, employability and social adjustment scales, respectively.

The long range stability of these counselor ratings was examined using data from a partial replication of the pilot testing. This replication involved 62 subjects from the original 130 subjects rated in the pilot study; 54 of the 75 subjects tested on the FCI in the pilot study and an additional 8 not tested at that time. Rating procedures were identical

to those previously used with counselors asked to judge their clients on the three community adjustment rating scales. All but 13 of the 62 subjects had the same counselor. The period between ratings was 15 months.

In most instances, the counselors made very similar ratings of their clients on the two occasions. Through the overall mean rating increased slightly, the correlation between the two sets of ratings by the same counselor was generally high, .84 for the combined integration, employability and socialization scale.[1] Including the 13 subjects rated by different counselors reduced the coefficient to .73. Instances of larger changes were followed up by questioning the counselors. In all cases counselors accounted for their different ratings in terms of client change. It might be further noted that none of these larger changes involved displacements of more than half of the rating scale and nearly all of the changes were from the more extreme ratings to more central scale positions.[2] In overview, it appears that the rating procedures as used by these counselors provided generally stable judgments of their clients.

B. Subjects

The several samples of mildly retarded young adults interviewed and tested during the course of the project in effect comprised two major data collection and analysis samples. The first may be referred to as a post school sample and consisted of 384 former special education students who had all been out of school at least one full year. The second, to be referred to as a high school follow-up sample consisted of 200 special education students preparing to leave school (most of them as high school graduates) in June of 1975. All included subjects in both samples had been identified as "mentally retarded" (by their local school personnel) and placed in classes for the educably retarded. Though placement criteria vary somewhat, the principle criteria operating for these subjects at time of placement was measured intelligence in the appproximate IQ range of 55 to 80 and "inability to progress" in a regular classroom. Due to restrictive policies regarding individual student data, IQ's were available for only about half of the post school subjects. For these subjects IQ's varied between 54 and 87 with a mean of 67.9 and a standard deviation of 11.1. An additional sample selection criteria for all subjects was absence of physical or other handicapping conditions in addition to retardation. Some prospective subjects who has already been interviewed and tested were later removed from the analysis sample for this reason as were subjects who failed to meet the out-of-school condition for their sample.

Though interviewed and tested a full year prior to that of other post school sample subjects, the Eugene pilot subjects were included in that

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[1] The 15 month retest correlations were nearly as high for the individual scales; .82 for the integration scales, .81 for the employability scale and .66 for the socialization scale.

[2] In particular, 8 clients initially rated in the upper third of the scale and 8 others initially rated in the lower third were subsequently placed in the middle, 2 others were rerated from middle to low.

sample. These pilot subjects were part of th 130 former "special education" students initially identified and rated by their former or current vocational counselors in developing the rating procedures described above (see Section IIA4). Only 93 of these 130 prospective subjects were personally contacted, 21 others were located but were distant, and 16 were unlocatable. This 93 subject pool further reduced with the exclusion of 7 prospective subjects who had not been out of school a full year, and 9 others who choose not to participate in the study. The final testing sample consisted of 43 males and 34 females. Since all 130 prospective subjects has been rated by their counselors, it was possible to compare the 77 tested subjects with 53 unavailable subjects were 6.1 and 6.4, respectively, yielding a non-significant t of .68. Two additional subjects, one male and one female, were subsequently dropped from the analysis sample because of missing data, leaving a total pilot sample of 75 subjects.

Immediately prior to the securing and testing of further post school subjects, 53 subjects from the pilot sample and an additional 9 earlier rated subjects who had been either unavailable or too recently out-of-school for inclusion in the pilot sample were relocated and again rated by their counselors and retested. This repeated administration was a partial replication of their pilot testing for the purpose of determining FCI response changes, rating consistency and further try out of a second experiment test.

The remaining 312 post school subjects were all selected during the first year of project activity. Seventy three of these subjects were former special class students from the Salem and Eugene, Oregon schools, 80 from the Portland, Oregon schools, 99 from the Columbus, Ohio schools and 57 from the Madison and Jamesville, Wisconsin schools.

The intended procedure of first developing a prospective sample pool using vocational counselor listings of present and former mildly retarded clients had to be abandoned due to the more restrictive policies of the vocational rehabilitation agency which prohibited release of names without prior subject permission and which was unable to divert their own staff time to making the required initial subject contact. To counter this difficulty, alternative tracing procedures were developed in cooperation with special education personnel who provided the clerical support within their schools to make initial contacts with their former special education students. These initial school contacts were followed by project staff preliminary interviews and testing. The subjects provided the name of their present or recent counselor (if any) and a signed release for this counselor to provide the project information concerning them. An unavoidable difficulty with this procedure was that not all subjects had or could remember the names of counselors knowledgeable about them. In addition some of counselors were themselves difficult to locate.

These alternative procedures were followed at the two sample locations in Oregon. The initial potential subject lists of 118 former special education students from Salem and Marion County, Oregon schools included 13 who chose not to participte, 36 who were unlocatable, 11 who were unavailable at the time of testing, and one person unable to respond to

testing instructionss. The remaining 57 subjects were all tested in the Winter of 1974-75 together with 16 additional Eugene area subjects not previously tested. These latter 16 subjects were "hold overs" from the Eugene pilot rating sample who, at that time, had not yet been out of a school a year, making them ineligible for the pilot testing. Of this total 73 person "Salem" sample, 39 were males, 34 females.

The potential subject list for the Portland samples was prepared by school personnel who attempted to contact (by phone and/or letter) their former special education students who had left school since 1971. Most of these former students had attended the Portland program of vocational training programs for low potential students which had been operating in the Portland school since the 1970-71 school year. Since the project goal was 80 tested subjects, only the more recent former students were contacted until 80 subjects were secured. Four of the contacted students subsequently chose not to participate, two others were not locatable at time of testing and one other was unable to complete her test. Seven additional former students were therefore contacted to bring the total back up to 80. Testing was completed during the summer of 1975. Forty-one of these subjects were male, 39 female. To obtain retest reliability data on the FCI, all 80 Portland subjects received a second administration of the FCI a week later, half of these readministered by the same interviewer and half by a different interviewer.

In Columbus, Ohio most of the initial contacts were made by job placement and work evaluation counselors in the Franklin County Program for the Mentally Retarded using their large centralized listings of retarded persons living in and around Columbus. Many of these persons had or were receiving job training at the ARCraft sheltered workshops in that program. Others were residing in group homes in Columbus.

Eighty of these persons were identified as meeting the study's principle criteria of former public school special class attendance. Twelve additional prospective subjects were located in group homes in Columbus. An additional 71 former special class students were identified by the work study coordinators working in the Columbus public schools. Of this total initial listing of 163 prospective subjects, 19 were not locatable at the time of testing and 22 chose not to participate in the study. Of the remaining 119 subjects who were tested in the spring of 1976, 10 were found to be ineligible for reason of additional handicapping conditions and another 10 were considered unusable in that they were unable to satisfactorily complete their testing. The final tested sample consisted of 99 subjects, 56 males and 43 females.

In Wisconsin the listings of over 100 prospective students were available through their earlier participation in University rehabilitation research projects. These listings, however, dated four years and over a third of the originally listed subjects either could not be located or failed the criterion of being out of school at least one year. Sixty-one eligible subjects were tested in the summer of 1975 and four of these were subsequently lost to the study due to incomplete data. Of the final 57 subjects, 38 were male and only 19 female.

Table 3 presents a description of these foregoing post high school samples in terms of general characteristics such as sex, ethnicity, IQ, schooling and years out-of-school. As may be seen from the tabled data, more males than females were tested in all these samples, although in two samples these differences were negligible. In general, the percentages of refusals and unlocated S's tended to be the same for males and females. In the total post high school sample, the sex split was 56 percent male, 44 percent female.

Table 3
Post High School Samples of Mildly Retarded Young Adults

	Eugene (pilot)	Salem Oregon	Portland Oregon	Madison Wis	Columbus Ohio	Total
Total	75	73	80	57	99	384
Males	42	39	41	38	56	216
Females	33	34	39	19	43	168
Ethnicity						
Caucasian	74	73	74	55	66	342
Black	1	0	5	1	32	39
Age (Yrs.)						
Mean	22.3	21.5	20.5	21.9	21.7	21.6
S.D	2.2	2.2	1.3	2.5	3.0	2.3
IQ						
Mean	70.8	NA	66.3	70.4	NA	67.9
S.D.	11.4		8.2	9.3		11.1
% H.S. Grads	86	75	96	95	51	79
Aver. No of years out-of school	3.8	3.7	2.3	2.7	2.5	3.0
Range	1-12	1-9	1-6	1-9	1-11	1-12

Only the Columbus sample provided a sizeable percentage (32 percent) of blacks. The low percentage of blacks (6 percent) of the Portland sample was less than half of the 13.5 percent of blacks listed on the 393 name listing of post school educable retardates provided by the school. To be included in the testing sample the former student needed first to have a traceable address and to respond to a school letter or a phone call from the school. The lower participation rate for blacks probably reflects their living in more crowded, less easy to track environments. Had neighborhood persons been used as intermediary contact persons, more black subjects would likely have been included. The Columbus sample had the avantage of current addresses and, in many instances, daily contacts with potential subjects.

Nearly 90 percent of the sample were between 18 and 25 years old, with 8 subjects 18 years old and 26 others between 25 and 30 years old. As may be seen from the Table 3 data, the samples differed somewhat in average age. The average age for the combined samples was 21.6 years with the Eugene pilot sample averaging a year older and the Portland sample averaging a year younger.

As noted earlier, IQ data was available from only those validation samples. The IQ means for these samples were 70.8 and 66.3 and 70.4 and ranged from the mid 50's into the 80's. For the subjects with IQ data their average was 67.9 with a standard deviation of 11.1. The samples also differed with respect to percentage of subjects completing high school varying from a low of 51 percent in the Columbus samples (where the initial subject search involved non-school rehabilitation center referrals) to 96 and 95 percent in the Portland and Madison samples. For the total sample, all but 21 percent of the mildly retarded subjects had graduated from high school.

The average of years out-of-school reported by those subjects completing school averaged 3 years for the five samples with the longer out of school periods reported for the Eugene and Salem samples. Since it might be expected that the non-graduates (who were approximately the same age as the graduates) had been out of school one to two years longer, these sample averages are probably underestimated especially for the Columbus subjects. Though there were some subjects in all samples reporting being out of school more than four years these constituted only a small minority (13%) of subjects. In the total sample roughly one fourth of the subjects had been out of school one year, another fourth out of school two years, and a third fourth out of school three years.

Subject selection was more uniform (and simplified) across the four samples comprising the high school follow-up subjects. The inclusion requirements were that the prospective subject 1) has been identified by their school personnel as a mildly retarded and enrolled in a special class, 2) would be leaving school the end of spring term 1975, and 3) not have physical or other handicapping conditions in addition to retardation. In each sample site, initial contact with the students was made by special education person in their school. All students expecting to complete their schooling that term were asked to participate. Only a few refused and an additional small number were lost to the study because of illnesses or absences during the testing week. In all, a total of 200 subjects were tested, 18 students from the Eugene, Oregon high schools, 18 more from the Salem schools[1], 71 from the Columbus, Ohio schools, 46 from the San Jose, California schools, and 47 from the Reno, Nevada Schools. As with the post high school samples, more males (121 or 60 percent) than females (79 or 40 percent) were tested.

A subsequent examination of the interview protocals for the original testing sample of 200 subjects revealed six subjects with handicapping conditions (in addition to mild retardation) such as cerebral palsy, epilepsy and severe speech problems who clearly did not meet requirements

[1] In reporting and analysis purposes, these two small samples were combined into a single Eugene-Salem sample.

for sample inclusion. The elimination of these six subjects reduced school subjects is provided in Table 4. As may be noted, again, the Columbus sample provided nearly all the blacks in the sample. Ten (nearly a fourth) of the San Jose Subjects had Spanish surnames. At initial testing, high follow-up subjects ranged in age from 16 to 20 years with an average age of 18.2. With few exceptions all students were residing with one or both parents.

Table 4
High School Follow-up Samples of Mildly Retarded Young Adults

	Eugene/ Salem	Columbus Ohio	San Jose Calif.	Reno Nev	Total
Total	35	70	43	46	194
Males	19	43	22	31	115
Females	16	27	21	15	79
Ethnicity					
Caucasian	34	36	29	42	141
Black	0	34	2	3	39
Age (years)					
Mean	18.6	18.4	18.4	17.2	18.2
S.D.	1.0	.8	.7	2.1	1.0
% Living at Home	91	87	95	93	91
AT TIME OF SECOND ADMINISTRATION (SIX MONTHS LATER)					
Total	29	56	41	39	165
Males	18	34	21	26	99
Females	11	22	20	13	66
AT TIME OF THIRD ADMINISTRATION (SIX MONTHS LATER)					
Total	31	51	36	41	159
Males	18	32	19	28	97
Females	13	19	17	13	62
AT TIME OF FOURTH ADMINISTRATION (SIX MONTHS LATER)					
Total	27	54	36	37	154
Males	15	32	20	25	92
Females	12	22	16	12	62

In accordance with project plans to examine the FCI attitudinal and personal value responses for possible changes during the subjects' immediate post school period, these 194 subjects were contacted for retesting on three subsequent occasions. These retests were spaced at approximately six month intervals, in the fall of 1975, in the spring of 1976, and finally in the fall of 1976. At the time of their fourth and final testing, subjects had been out of school approximately 18 months. During this period a total of 40 subjects were lost to the study approximately half of these because

unavailability at time of testing (out of town, ill, etc.), and half due to their preference to discontinue project involvement. A sample by sample description of this attrition is provided in the lower portion of Table 4.

C. Data Collection

Most of the post high school sample were interviewed and tested in their home residence. An exception was some 40 present or former ARCraft subjects in Columbus who were tested at their rehabilitation training center. The preliminary procedures generally involved confirming the prospective subjects' current address, a phone or in person contact to explain the project's goals and involvement required of the subject and scheduling the home interview. Subjects were assured of the anonymity of their responses and promised a payment of five dollars for their approximate two hours of time or reimbursement for their away-from-work time.

The interviewers varied for the different testing sites. The interviewing and testing of the 77 Eugene pilot subjects was conducted principally by a team of four advanced Univesity of Oregon graduate students with professional experience and academic training in the areas of educational psychology, counseling, and/or guidance; all had graduate level training in individual testing and professional or training experience working with retardates. Three similarly experienced graduate students conducted the second testing of the pilot subjects and interviewed the 73 "Salem" subjects. Two interviewers, the first experience with the Salem testing and the second, a Portland State University graduate counseling student with prior experience as a rehabilitation counselor conducted all the Portland interviews. In conducting their second administration of the FCI the following week, the two interviewers were reassigned subjects so that half the 80 Portland subjects received their second FCI from a different interviewer.

The Columbus interviews were scheduled and monitored by a graduate psychology student at Ohio State University who arranged for the training and scheduling of interviewers recruited from the University's Nisonger Center retardation training program. The Madison interviews were similarly scheduled and monitored by a graduate student from the Waisman Center at University of Wisconsin.

As noted, the interviews were typically conducted in the subject's home, frequently in the evening. Though most commonly the examiner was alone with the subject in a living room or kitchen with other family members in adjoining rooms, privacy was occasionally not possible. In these instances, the extent, of the subject's increased acquiescence, (i.e., trying to respond favorably to please a watching parent or spouce), cannot be determined. However, this seemed to occur as often in all samples and as often with subjects subsequently identified as "high" or "low" rated with respect to community adjustment. Though the total interview-testing session sometimes exceeded two hours, few clients complained to the extent of interrupting the testing.[1]

[1]Though clearly this long testing period contributed to subsequent subject attrition.

Since the high school follow-up subjects were still in school at the time of their first interviewing and testing, arrangements were made to interview and test most of them during their school day. Interviews were private to the subject and interviewer and took as much as two hours depending on the subject's responsiveness. Those subjects not able to arrange school were interviewed in the evening in their homes as were all follow-up interviews and testing.

Where possible the same interviewers, experienced with the post high school subjects, were again used for testing of the high school follow-up subjects. This was true of the Salem-Eugene samples and for the Columbus sample. All interviews of the San Jose subjects were conducted by a resident researcher with backgrounhd and experience in teaching and retardation. The in-school and first follow-up interviews of the Reno subjects were similarly conducted by an experienced teacher. Her subsequent unavailability, prompted a more extended use of the two Salem-Eugene interviewers who conducted the third and fourth testings in Reno. One of these interviewers also travelled to Columbus to conduct most of the fourth testing of that sample.

The interview schedules and tests administered to the pilot Eugene subjects differed somewhat from those administered to the remaining post high school samples. One change was the deletion of two experimental tests administered to the pilot subjects. The first of those was the Statement Ranking Report was developed as a companion instrument to the FCI to provide secondary and confirmatory data regarding the subject's resonses on the FCI. The Ranking Report required the informant to rate and then rank the FCI statements (within subsets of six) according to how true they were of the subject or, in the case of the Value statements, to the extent these latter statements reflected the subject's views. Because of problems of task difficulty and securing other than "house-wife" parents, administration of this instrument was discontinued.

The second experimental test was the Test of Social Inference (TSI), a picture interpretation test developed for measuring social understandings of adolescent educable retardates (Edmonson, deJung, Leland & Leach, 1971.) Extensive testing involving geographically dispersed samples of normal and of educable retardates has provided both normative data and validity support for the test (deJung, Nolen & Edmonson, 1972). The pilot study used a 14 picture short form administered by the interviewer. Though this TSI yielded significantly different (at the .05 level of confidence) scores for S's in the three categories of successful community adjustment, in the anticipated order of highest means for the high success group, etc., these score differences were small and afforded considerable score overlap in the middle TSI score ranges. A problem here was the low level of difficulty of most of the TSI items and the considerable bunching (skewing) of TSI scores at the high end of the score continuum. The retesting of the pilot sample a year following their initial testing provided an opportunity to try a longer form of the TSI using eight additional TSI items containing all the most difficult TSI pictures. Though the corrrelations between the longer and shorter tests after a one year interval was .63 indicating moderate stability and though TSI means were again higher for the higher rated group, next highest for the middle

rated and least for the low rated groups, the score distributions were still considerably skewed negatively with most subjects earning high scores. The discriminability of the TSI between successful and unsuccessful subject's remained low; TSI scores for the longer test correlating only .13 with counselor rating. A decision was made to discontinue administration of the TSI to project samples of post high school subject's.

The pilot study FCI was also revised preparatory to testing of the further samples of post high school subjects. The FCI revisions included minor rewording of several statements and deletion of the three least contributing "work orientation" statements leaving all subsets of equal, 15 item length. A further revision was an addition of six statements (15 paired comparison items) dealing with "attributions of success" (see section A2, above.)

Aside from more minor changes in questioning and recording, an early change in the interview schedule was the addition of a trial "Names" test involving the subject's judgments of how he/she and a small sample of his/her peers "are doing since high school." Essentially, the subject's task was to list the names of five to ten similar age friends or associates and to judge how well "they were doing." At a later time in the interview, using the same rating format, the subject was asked to estimate their counselor's rating of themselves and then to make a self rating. These subject ratings, together with the later-obtained actual counselor rating of the subject, were designed to yield measures of subjects' perceived relative success and of the accuracy of their self estimates.

Though the Names Test was administered in all of the post high school samples, two problems were immediately apparent, first, that a number of subjects had difficulty in recalling the minimum number for them to rate, and second, a lack of discrimination in the ratings themselves, i.e., many subjects giving all their listed peers very nearly the same rating. This rating agreement tended to maintain for the subject's self rating and for the rating expected from his or her counselor. The product moment correlations between subject's self rating and his expected counselor rating ranged from .40 to .72 for the several samples tested. At the same time, near zero relationshsips (sample r's ranging between -.13 and .22) were found between self ratings and actual counselor ratings. Since most self ratings and expected ratings were toward the higher end of the scale, the "built in" or artifactual result would be that subjects perceived (and rated) as more successful by their counselors would appear to be more aware of their counselors' evaluations of them that would lower rated subjects. In effect, it appeared that both the task difficulty and "self approval" response severely limit the usefulness and interpretability of the Names Test data. Tough some further examination of the Names Test data was made in connection with selected FCI statements (see Section IV), administration of this potentially low yield test was discontinued for the follow-up high school samples.

D. Modification and Analyses of Ratings

A critical link in the project strategy for developing community adjustment measures based on differences between the responses of succeeding and nonsucceeding retarded adults was their counselor's initial identification of them as successful or unsuccessful. One problem which became apparent during the course of interviewing and testing of the Salem-Eugene former high sschool sample was that some subjects could not refer us to counselors sufficiently knowledgeable about their current living to serve as raters. Rather than considerably restrict the sample, these subjects were asked for names of possible high school teachers or vocational trainers who were well acquainted with them and and who had maintained contact with them. These reference persons were then contacted and instructed on the use of the rating form and asked to rate their former trainees on the three comunity adjustment scales.

This solution wasn't entirely satisfactory. Two major problems were the time consuming difficulties in contacting these teacher-trainer persons, (frequently for their rating of only one or two subjects) and, more important, the sometimes narrow and idiosyncratic reference populations considered by these persons in judging the adjustment of their one or two former trainees. Without reasonable similarities in the breadth and composition of the reference populations used by different raters, comparisons and groupings of subjects rated by different raters would have limited interpretability.

An alternative was to use the always available and more homogeneous pool (with respect to age and training) of interviewers as substitute raters. Accordingly, interviewer rating instructions were prepared and trial tested with the Salem-Eugene post high school subjects. These three rating sources, counselors, teachers or trainers, and interviewers provided multiple ratings on most of these subjects. Of the total 73 young retarded adults in the Salem-Eugene sample, 22 were rated by both a counselor and teacher, 31 by both an interviewer and teacher, and 65 by both a counselor and interviewer.

Table 5 provides a summary of these comparisons. For purposes of interrater comparisons, the ratings for the three community adjustment scales were summed as a total rating and these total ratings compared across the different rater groups.

Table 5

Comparisons of Community Adjustment Ratings Made of the Same Salem-Eugene Subjects by Counselor, Teachers and Interviews

Rater Groups	N	X		t	r
Counselors	22	4.89	2.35	1.38	.50
Teachers		4.28	1.67		
Interviewers	31	4.20	2.16	1.14	.64
Teachers		3.84	1.84		
Counselors	55	3.83	2.37	.81	.67
Interviewers		3.64	2.14		

As may be seen from the Table 5 data, the average ratings made by these different rater groups when rating the same subjects were generally close, particularly for the counselor-interviewer comparisons which revealed average differences of less than one fifth of a scale unit (on an 9 point scale). The matched t's for the three interrater comparisons were all well within chance variation at the .05 level of confidence.

The only moderately high interrater correlations coefficients, however, permit considerable differences regarding how individual subjects were judged rated by their different raters. Further examinations were made of the data to reveal possible systematic biases on the part of particular raters, that is, whether much of the obtained interrater differences could be attributrable to a few more "discrepent" raters. This expectation was not realized though the data was limited in that some raters had judged too few subjects to be clearly discerned as "biased." In terms of the intended use to be made of the ratings for trichotimizing subjects into a "high" rated, "middle" rated and "low" rated category, however, the obtained interrater discrepancies appeared less damaging. The trichotomy "cutting points" for the averaged total rating were 6.0 or above grouped as "high," those receiving average ratings below 4.0 grouped as "low" and those receiving average ratings in between, grouped as "middle." Only in a very few instances did subjects receive an average rating from one rater (either a conselor, teacher, or interviewer) placing him/her in either the high or low group and then sufficiently different ratings from second rater playing him/her in the opposite group. By far most subjects were twice placed in the same category with approximately only one subject in ten requiring moving in or out of the middle category based on a different rating from the second rater.

Expecting the Columbus post high school sample where counselor or teacher ratings were available for all subjects and time scheduling did not permit training of interviewers as raters, interviewers were used to rate all remaining post high school subjects. Where both interviewer and counselor ratings were obtained these ratings were averaged. Prepatory to classifying the subject as either "high", "middle" or "low". In

effect all of the subjects' ratings were combined and averaged, those received on the three different rating scales and those received from different raters. For the total post high school sample of 384 subjects 136 (86 male and 50 female) had average total ratings of 6.0 or above and were placed in the high rated group, 133 subjects (67 male and 66 female) had average ratings of below 4.0 and were placed in the low rated group, and 115 subjects (63 male and 52 female) had average ratings of 4.0 to 6.0 and were placed in the middle rated group. A further breakdown of the numbers of high, middle and low rated subjects for the five samples comprising the posst high school sample is provided in Table 6.

Table 6

Counts of the Number of High Rated, Middle Rated and Low Rated Males and Females in the Five Post High School Samples of Young Mildly Retarded Adults

	High Rated		Middle Rated		Low Rated		Total	
	M	F	M	F	M	F	M	F
Eugene (Pilot)	23	8	5	8	14	17	42	33
Salem-Eugene	12	5	15	13	13	16	39	34
Portland	17	11	11	13	13	15	41	39
Madison	17	10	13	4	8	5	38	19
Columbus	17	16	19	14	20	13	56	43
Total	86	50	63	52	67	66	216	168

The same interviewer rating format was used to obtain community adjustment ratings as a basis for trichotemizing the high school follow-up sample. Prior to using this format the intelligibility and adequacy of the interviewer rating instructions and format was further examined in small group discussions involving some 30 professional field workers and counselors working with the retarded who were participating in a summer rehabilitation workshop. These participants reported no problems in working through the rating format. The instructions and rating format used by the interviewers in rating their high school follow-up subjects is included as Appendix C of this report.

Though it was planned to obtain the follow-up subjects' ratings immediately following their final fourth test session, a preliminary set of ratings was obtained immediately following the subjects' third test session. One hundred sixty-four subjects were rated at this time. These preliminary ratings constituted a trial administration but, in the absence of problems or recommended changes, identical instructions and procedures were repeated following the final test session. One hundred sixty subjects were rated at this time, 150 of whom had been rated approximately six months earlier. Aside from providing extensive

interviewer practice as a rater, this repeated use of the interviewer rating form provided both retest stability and interrater agreement data. As noted earlier in this section, all testings and therefore both ratings of the Salem-Eugene subjects and of half of the Reno subjects were made by the same interviewer. This was also true for the San Jose subjects. The remaining subjects all had been rated by different raters on the two occasions, the second time mainly by the Salem-Eugene interviewer traveling to Columbus and to Reno. Table 7 provides a summary of the comparisons of these ratings made of the same subject by the same and by different interviewers after an approximate six month interval.

Table 7

Comparison of Community Adjustment Ratings Made of the Same High School Follow-Up Subjects On Two Occassions (after a six month interval) by the Same and by Different Interviewers.

	Occasion	N	M		t	r
Several Raters	3rd Testing	65	4.9	2.2	1.70	.66
Rater A	4th Testing		4.4	1.9		
Rater A	3rd Testing	45	4.3	1.9	2.39*	.72
Rater A	4th Testing		4.8	1.9		
Rater B	3rd Testing	37	4.0	2.0	.80	.75
Rater B	4th Testing		4.2	1.6		
All Raters	3rd Testing	150[1]	4.5	2.0	.67	.66
All Raters	4th Testing		4.6	1.8		

*Significant at the .05 level of confidence

As may be seen from the Table 7 entries, the differences in rating means do not appear to follow any fixed pattern. The higher average final ratings given to subjects by raters who had previously rated them (the comparison for rater A's significant at the .05 level of confidence) is counterbalanced by even higher initial ratings given subjects subsequently rated by a different rater. This reversal, in effect, wipes out any third-fourth testing differences in ratings for the total combined sampled but at the same time alternates the retest correlation coefficient for the total sample. It should be noted that the first three comparisons summarized in Table 7 generally represent different follow-up samples, the first sample including 48 Columbus subjects, the rater A sample being all Reno and Salem-Eugene subjects and the rater B sample being all San Jose subjects. The possible differences among sample sites with respect to such variables as employment opportunities and availability of vocational guidance which in turn would be expected to affect subject progress toward successful post school living, confounds interpretations of rater bias or instability.

[1]This total includes 3 pairs of rating not involving either Rater A or Rater B.

As may also be noticed from the Table 7 correlation coefficients, the correlation between sets of ratings made by different interviewers of the same subject over the 5-6 month retest interval was only slightly less than those for ratings made by the same interviewer. These similar coefficients suggest that the raters used in the study were generally interchangable.

The same-rater retest correlations of .72 and .75 while moderately high considering that they encompassed the period between 12 months and 18 months out of school, nor:theless, statistically account for only half the variance and allow a number of substancial differences in ratings. Post rating interview with one of the raters substantiated that her reversals were due to subject change[1] rather than rater variability. In view of acknowledged opportunities for actual change in a subject's rated adjustments and in the reasonable expectancy that these changes would be far from uniform across subjects, the Table 7 retest coefficients perhaps should more properly be considered as lower bound estimates of interviewer rating stability. The similarity of retest coefficients for some raters and for different rater belies a memory effect. More adequate documentation of rater "reliability" requires data collection paradigms specifically designed for that purpose. The problem of stability of ratings aside, subsequent more extensive examinations of factors apparently affecting the ratings suggest more immediate difficulties in interpretations of "high" and "low" ratings as "successful" and "unsuccessful" community adjustment (see Section IV below).

[1] One example of rating changed from "high" on the third testing to "low" on the fourth testing was for a subject who had just lost his job but was looking for other employment when first rated, but who had "given up" when rated again. An opposite example was for a young person who had married and was realistically planning for her future; a positive change from her prior interview.

Section III Status of Mildly Retarded Young Adults

As described (noted) earlier, the nearly 600 young retarded adults participating in the project were interviewed during their testing session to learn about their general background and, more specifically, about their vocational and social experiences and about their intentions and expectations for the future. This section presents summarizations of these interview responses, first those of the post high school subjects and then those of the follow-up high school subjects. A copy of the structured interview form used to collect this information is included as Appendix B to this report. The appendixed form (referred to as the general information questionnaire or GIQ) was that last administered to the post high school samples. Changes made in the earlier GIQ's have already been noted in Section II. More specific mention of these changes will be made in presenting the data.

A. Post High School Sample:

The general characteristics (sex, ethnicity, age, IQ, schooling, and years out of school) of the post high school subjects have already been reported (see Table 3). At the time of their interview all had been out of school at least 12 months, most between two years and four years. One set of interview questions concerned their present living arrangements. Of the total sample, 68 percent responded that they were living at home with parents or relatives, 10 percent were living in group homes, 15 percent with spouses, 4 percent alone and the final 3 percent in mixed or uncertain living situations. Of the total sample, 64 (17 percent) were married, 34 of the women and 30 of the men. The Eugene and Salem subjects (39 percent of the total sample) with slightly longer out-of-school and slightly older subjects accounting for just over half of these marriages.[1] In answer to the question "were they generally satisfied with their present living arrangements?", by far most subjects (65 percent) responded positively with the remaining third expressing either a neutral or negative answer. In terms of satisfaction with the persons they were living with, responses were somewhat less positive, 41 percent of the sample responding either negatively or neutrally. (Deleting the 17 percent of the sample who were living separately from their parents, these figures were nearer 50 percent.)

In all samples the unemployment rate for the subjects' parents was considerably higher than the national unemployment norms. (In 1975 the Bureau of Labor reported that of those persons participating in the labor force, 7.8 percent of the men and 7.0 percent of the women were unemployed.) Excepting the 25 fathers reported as retired, another 4 reported as disabled, and 43 reported as either deceased, or "whereabouts unknown", the unemployment rate based on the remaining 293 reported fathers was 15 percent. Though less than half of the mothers were employed, their unemployment rate is less clear since nearly all the unemployed (at-home) mothers were described as housewives with only one in twelve (8 percent) identified as having an alternative occupation. Considering these as the minimum number unemployed

[1] It might be added that retesting of 54 of the 75 Eugene pilot subjects a year after their initial testing revealed another 10 of these subjects (now averaging 23 years old and out of school an average of 4.8 years) had married, raising their sample percentage to 53 percent married.

women and conseryatively excluding housewives from the job seeking labor force, the unemployment rate for women in the sample still would be around 20 percent.

The fathers occupations were principally in the semiskilled category (63 percent), the remainder equally split between the skilled or professional categories (19 percent). As just noted, very nearly half of the mothers were reported as housewives. Of the non-housewives, over a third (38 percent) were described as having occupations in the unskilled categories, nearly half (45 percent) in the semiskilled categories and the remaining 17 percent in either skilled or professional categories. Again these percentages for both the fathers and mothers occupations were generally similar for the five post school samples.

Parent occupations reported for the employed parents of the post highschool subjects were also classified by occupational title. Half of the fathers (50 percent) were employed in jobs in the Industry and Trades category as compared to only 7 percent of the mothers. The major employment category for the mothers was Business and Clerical, accounting for 37 percent of the employed mothers' jobs followed by the Service category accounting for 22 percent. Professional occupations accounted for the same number (22 percent) of mothers' jobs and 13 percent of the fathers' jobs.

As noted earlier a major portion of the post high school subjects' interview dealt with their employment and occupational goals. At the time of their interview approximately a third of the 384 post highschool subjects were full time employed, only 21 (6 percent) were part time employed, while 88 (23 percent) were in sheltered workshops. Another 29 (8 percent) reported being housewives. The remaining 107 (28 percent) were unemployed. Employment percentages for male and female subjects (counting housewives as employed) were identical (28 percent), but excluding housewives and sheltered employees, only 48 of the 168 women in the sample (29 percent) secured competitive employment compared to 112 (52 percent) of the 216 men.

The employment frequencies and percentages (in parenthesis) for the five different post school samples are presented in Table 8. As may be seen in that table, these figures vary differ for some samples, the larger percentage of Madison subjects full time employed and the much larger percentage of sheltered workers in the Columbus sample. Again the fact of different sampling procedures, particularly in Columbus, confounds interpretation across sample differences. Contrary to expectation, however, no relationship was found between present unemployment and number of years out of school. This examination was made for the combined samples with employment rates computed for subjects grouped according to years since leave of school. The near 40 percent competative employment and near 30 percent unemployed generally maintained for all years-out-of-school categories.

Table 8

Frequencies (and Percentages) of Employment for Five Samples of Post High School Mildly Retarded Young Adults

	Eugene (pilot)	Salem Oregon	Portland Oregon	Madison Wisconsin	Columbus Ohio	Total
Sample Size	75	73	80	57	99	384
Employment						
Regular	37(49)	24(32)	25(31)	32(56)	21(21)	139(36)
Part-time	2 (3)	5 (7)	6 (8)	1 (2)	7 (7)	21 (6)
Sheltered	10(13)	5 (7)	10(13)	11(19)	52(53)	88(23)
Housework	13(17)	5 (7)	7 (9)	3 (5)	1 (1)	29 (8)
Unemployed	13(17)	34(47)	32(40)	10(18)	18(18)	107(28)

The Table 9 data offers a further description of the employments the post highschool subjects in terms of seven categories of "employment setting." These are: 1) sheltered or non-competitive, 2) food service jobs, 3) department or grocery store clerk or stocker, 4) industry or business jobs such as factory or mill hands, laborers, and clerical, 5) non-food service jobs with public agencies such as schools and hospitals, 6) domestic or grounds maintenances jobs, and 7) housewife.

Table 9

Employment Settings for 384 Mildly Retarded Adults After an Average of Three Years Out of High School

Employment Settings	Males N=216	Females N=168	Total N=384
1. Sheltered	43(20)	45(27)	88(23)
2. Food Service	24(11)	10 (6)	34 (9)
3. Store Clerk	2 (1)	6 (4)	8 (2)
4. Industry & Mfg.	64(30)	13 (8)	77(20)
5. Nonfood Service	17 (8)	11 (7)	28 (7)
6. Domestic	5 (2)	8 (5)	13 (3)
7. Housewife	------	29(17)	29 (8)
Total Employed	155(72)	122(73)	277(72)
Unemployed	61(28)	46(28)	107(28)

Note: percents are in parenthesis

As may be noted from the Table 9 entries, most (57 percent) of the competitive jobs secured by men in the sample were in the industry-manufacturing category with the food and nonfood service categories supplying nearly all remaining jobs. The several competitive employment setting categories were more evenly supplying the women jobs though, as earlier noted, only one women in three or four had found competitive employment. One question in the interview dealt with the subjects' recall of their hig school work experience program. Seventy-seven percent of the 384 subjects reported attending such a program. Of those 87 subjects who had not participated in a work experience program, only 27 (31 percent) were now competatively employed, 43 percent of the men and 17 percent of the women. Most subjects cited their high school work experience as their most helpful school offering. Even so, most subjects (74 percent) recalled that their work experiences did not provide them the skills required on their present job and 41 percent of the employed subjects reporting no relationship between their present job and their high school work training.

Related to their present employment were questions of post school job training, how they found their job, how long they had had it, other jobs they had had, and reasons for changing jobs. Approximately half of the subjects (51 percent) reported receiving some training, half of these persons from through vocational rehabilitation agencies, one-fourth through private industry and the remaining one-fourth through trade schools or community colleges.

Nearly a third of the employed subjects (48 percent) reported finding their job through family or relatives, another 16 percent on their own, 20 percent through friends or family and 24 percent through vocational rehabilitation agencies. These percentages were similar for the employed males and employed females. Though teachers or their work experience program were credited for finding jobs for less than 8 percent of the employed subjects, this low percentage pertained to their present job and may have been considerably higher for their first out of school job. By far most employed subjects (over 80 percent) reported having their present job at least a half a year, most of these persons having their present job longer than a year. This was true for males and females. Considering that approximately a fourth of the sample had not been out of school much more than a year, these percentages indicate considerable job stability among the employed.

At the same time, most subjects reported having had prior jobs. Of the total 384 subjects, very few apparently never had any job. However, in terms of never having held a competitive job, this percentage increased to around 40 percent for both sexes. Nearly all subjects who have had other than sheltered jobs reported having changed jobs at least once. Of those who have held jobs on a competitive basis, 75 percent of the males and 89 percent of the females reported having been fired or "laid-off" a prior job. Only 25 percent of the males and 11 percent of the females reported having left jobs only for more creditable reasons such as to continue schooling, for a better job, etc. In general, it might be said that when a subject left a job the chances were high that it was not of his or her own chosing.

Occupational levels were assigned to the various reported employments for the 248 presently employed non housewife, post school subjects according to the amount of prior experience or training required for these positions. Since the subject's reported job title might not properly or sufficiently reflect his or her actual job, the subject's statement of job duties was used as a confirmatory check. A four level grouping of employments appeared adequate for the reported jobs. These levels were 1) unskilled, 2) semi-skilled, 3) above-skilled, and 4) skilled. A listing of specific jobs at each of these four levels is included as Appendix D. The number and percentage of jobs held by the post high school subjects at these different occupation levels is reported in Table 10.

Table 10

Occupation Levels for Jobs Held by 248 Employed Mildly Retarded Adults After an Average of Three Years Out of School

Occupational Levels[1]	Male N=155	Females N=93	Total N=248
1) Unskilled/Sheltered	63(41)	51(55)	114(46)
2) Semi-skilled	56(35)	30(32)	86(35)
3) Above Semi-skilled	28(18)	10(11)	38(15)
4) Skilled	8 (5)	2 (2)	10 (4)

Note: percentages are in parenthesis

[1]Based on experience or training required: See Appendix D.

As may be seen in Table 10, nearly half of all 248 employed subjects were working in either unskilled sheltered workshop situations (35 percent) or in similar unskilled level competative jobs (11 percent) such as dish-washer, garbage collectors helper, etc. The percentage was slightly higher for the employed women in the sample due largely to the greater number (48 percent) of women in sheltered workshops. Two thirds of the remaining subjects held semi-skilled "blue collar" jobs (35 percent of all employed) such as maid, waitress, janitor, etc. Approximately only 1 out of 5 of the employed mildly retarded adults in the sample held jobs at the level of semi-skilled (or above), jobs such as mill or construction worker, store clerk or service helper. Considering the total sample of 384 former special education students, nearly 80 percent of whom had completed their high school training, who were typically in their early twenties and had

[1]Two additional job levels used to classify parent's occupations are also included in Appendix D.

been out of school for an average of three years, this ratio of persons employed above a minimum semi-skilled level drops to only one in eight.

The employed subjects were asked how well their supervisors and fellow workers "treated them" and more generally how did their job, coworkers, and supervisors "suit them", how well did they get along? Responses were classified as either positive, neutral or negative. In all samples most responses were positive, approximately 75 percent with respect to both supervisors and coworkers and only slightly less with respect to their more general "job satisfaction." When asked about future job plans, 23 percent anticipated jobs at the lower unskilled level, 31 percent at the next skill level and 26 percent at the skilled and semi-professional level. Twenty one percent of those employed reported no future job plans. Approximately 40 percent of those presently employed at the lowest unskilled level anticipated jobs at the same unskilled level but a similar number said they planned to get jobs at next higher skill levels. At the higher skill levels few job holders planned to "move up" the job skill ladder. Of the presently unemployed, most (70 percent) had plans to find jobs, half of these subjects referred to jobs at the lowest unskilled level.

Apart from the subject's past, present and anticipated employments, questions were asked concerning use of leisure time, what the subject did, with whom and how often. Four categories of leisure time use were developed: 1) principally solitary passive, non goal oriented activities such as watching television, 2) active non goal oriented activities principally solitary, such as solitary games, movies, eating out, playing tape recorder, minimal visiting with friends, 3) a single active goal or product oriented activity involving other persons such as a group sport or game, active membership in a social group, involvement (on a regular basis) in a hobby such as sewing, gardening, mechanics, camping, fishing, partying, and 4) multiple active goal or product oriented activities with others (two or more code 3 acitivities). Of the total sample, though few subjects (2 percent) fell in the very lowest (solitary--passive) leisure time use category, a considerable number (25 percent) indicated that they were very seldom seeing other persons (excepting their at-home adults or siblings) during their non working hours. The remaining subjects were about equally distributed between the two higher (activity--socialization) categories, somewhat more than a third in each grouping. The distributions for these leisure time use categories were very similar for men and women.

A prominent feature of most young adults in the sample limiting or supporting their daily acitivities was their ability to get around, i.e., their forms of transportation. Subjects were asked how they "went places," if they drove themselves, rode bikes, used public transportation, walked (by themselves), or were nearly always dependent on others to drive them. Twelve percent of the subjects[1] reported that they were totally dependent upon others for getting around, a few more (5 percent) indicated that they went places by walking (by themselves), a third more used the bus as well as walking and another fifth also either biked or hitchhiked. Nearly a third of all subjects reported

[1] This data was not available for the Columbus sample.

that they drove themselves. Most of these latter were male, (44 percent as compared to only 14 percent of the women). This sex difference of greater dependency for transportation extended to all transportation categories, nearly 20 percent of the women reported nearly always being driven or taken by others as compared to only 6 percent of the men. It is likely that lack of access to independent transportation significantly affects both the work and leisure lives of subjects unable to drive or to utilize public transportation.

B. Follow-up High School Sample: The general characteristics (sex, ethnicity, age, and residence) of the 194 mildly retarded special education students planning to leave school in June, 1975 who comprised the usable follow-up high school subjects have already been reported (see Table 4) together with the reduced sample sizes for subsequent retesting, 165 subjects completing the second testing, 159 subjects the third testing and 154 subjects the fourth testing. As noted, about half of the attrition was due to unknown addresses and unavailability (principally out-of-state) and half due to "refusals." Though more females than males refused re-testing, more males than females were lost to the project for reasons of moving out of town or having unknown addresses. The result was that very nearly the same relative numbers of males as females were lost on each successive testing, the final testing sample containing 59.7 percent males and 40.3 percent females as contrasted with percentages of 59.3 males and 40.7 females for the initial testing. More generally, it may be reported that the 40 subjects failing to complete the study were quite similar to the starting groups of 194 subjects with respect to age, sex, and ethnic distributions and school work experience. Only one of the starting sample subjects was known to be later institutionalized (in a mental hospital). During their first year after school, four of the males were known to have enlisted in the armed services, two others in the job corps. None were known to be in prisons or detention homes.

Nearly all 194 of the high school follow-up subjects were in the 17 to 19 year old age range, eleven of them 20 to 21 years old. All but 24 were graduating from the 12th grade. The 24 non graduates were principally eleventh graders who indicated they would not be continuing in school. With only seven exceptions, the 194 subjects were all living at home with parents or close relative when first interviewed. Of the seven, one was living in a group home, two with friends, one with a girl friend and three were married (one living with his in-laws). One hundred and sixty of the 194 subjects reported having two parent homes and all but four subjects reported having siblings.

As might be expected, the numbers of subjects living away from home increased over the three retest periods. Living alone, with a roommate, with a same age sibling, or with a spouse was considered a more independent living arrangement than living with parents or older relatives. The percentage of subjects living in more independent living situations increased steadily from 6 percent at first testing (still in school) to 9 percent six months later, to 14 percent a year after school and to 23 percent a year and a half after school. The number of reported marriages similarly increased from 3 at first testing, to 9 six months later, to 8 a year after school, to 15 another six months later. Approximately as many males and females reported being married.

Parent unemployment, examined at the time of first interview while the follow-up subjects were still in school, appeared to be about double that of the national average of 7 percent (Bureau of Labor, 1975). The 163 fathers and 186 mothers reported by the subjects in the study included 150 fathers and 113 mothers in the work force, i.e., other than disabled (7 fathers and 5 mothers), retired (5 fathers and 3 mothers), or in school (1 father and 2 mothers), or housewives not desiring outside employment (63 mothers). Of these, 129 fathers (86 percent) and 89 mothers (79 percent) were employed. Though in 70 of 160 two parent families both parents were employed, in 42 families including 22 of the two parent families, no adult was employed. Three single parents were among the disabled noted earlier.

The occupation for parents in the work force was reported for 143 fathers and 98 mothers. Summarizing these occupations according to a trichotomy of skill level (as was reported for the post high school sample, see prior subsection), revealed that a good fourth of the fathers (27 percent) and nearly half of the mothers (46 percent) had occupations classified as unskilled labor, with most fathers (64 percent) and two out of five mothers (42 percent) having skilled or semi skilled occupations. Professional and semi-professional occupations accounted for approximately 10 percent of both parent groups. More generally, it may be concluded that the skill level distribution of occupations reported for the high school follow-up sample is quite similar to that earlier reported for the post high school subjects.

Because the data was collected at four approximate six month intervals, the high school follow-up sample provided much more extensive information regarding the jobs and job expectations of the young mildly retarded adult than was available from the single interviewing of the post-high school sample. With the exception of 14 subjects, principally younger non-twelfth graders from the Reno sample, all follow-up subjects had participated in their high school's work experience program. In addition to placements in work situations as part of their training, most subjects also had obtained non HSWE program jobs during their high school period. The follow-up interviews further provided employment descriptions for each of three, conservative periods of approximately six months each following high school. These several job descriptions, the work study placement, the non-HSWE program jobs while in high school, and the subjects' post high school jobs, together afford a somewhat continuous description of various employments experienced by the young mildly retarded adults as he is leaving school and for the year and a half immediately afterwards. These data are summarized in Table 11 according to major job categories (food service, service, agricultural, industry, and retail trade, and clerical) and by more distinct job titles or types of jobs. The Table 11 entries are the number of subjects reporting having held the particular type of job with summaries and percentages included for each major job categories. The number appearing at the top of each column is the number of subjects providing data. The number appearing at the foot of each column is the total number of jobs reported. Since some subjects reported more than one job, this number is always larger than the number of subjects tested.

The 180 subjects who had been in HSWE programs reported a total of 370 HSWE job placements. Two hundred thirty-nine of these placements were held by males (an average of 2.2 placements per subject) and 131 were held by females (an average of 1.8 placements per subjects). In addition to receiving more placements on the average than females, males were placed in a more diverse range of jobs than were females. Males reported HSWE job placements in 25 of the 27 job categories, whereas females reported job placements in only 16 of the 27 categories. Analysis of the amount of time spent on work placements revealed similar sex differences, females reporting spending less total time on the average in work experience placements than did males, approximately 1350 work hours were spent in HSWE jobs by the average male subject compared with just under 1100 hours for the average female subject.

In terms of types of job placements reported, most job placements were in the service category (males 38 percent, females 33 percent), followed by food service (males 27 percent, females 37 percent), industry and retail trade (27 percent males, females 15 percent), and agricultural (males 5 percent, females 2 percent). However the pattern of job placements by job category differs for the sexes, males infrequently reported placements in the clerical category and females reported far fewer placements in the industry and retail trades category. The most frequently reported job titles by women were; cooking and dishwashing (24 percent), child care (15 percent), and clerical (15 percent). Men most frequently reported job titles of dishwasher and busboy (22 percent), janitorial (18 percent), gas station/car wash attendant (7 percent), and light assembly (8 percent).

A total of 110 of the 194 subjects reported having had other jobs during high school than those provided by the work study placement program. These are jobs other than part time irregular work as the neighborhood lawnmower or babysitter. 64 subjects (33 percent) reported HSWE job placements as their sole source of work experience before leaving high school.

Comparing the job placements provided by HSWE programs to those found independently by subjects reveals generally similar patterns, more so for males than females. The major differences for both sexes were the larger number of non-HSWE farm jobs (generally seasonal) and the larger number of clerical and food service jobs obtained through HSWE placement for females.

Columns 5 through 10 Table 11 report the frequencies of different jobs held by subjects in the three six month periods after high school. Reading across these successive columns for each sex group reveals generally stable percentages for the different job categories. Approximately a fourth of the jobs obtained by both sex groups were in the Food Service category, the remaining jobs about evenly split between service and industry and trade job for the males but with nearly twice as many services as industry jobs for the females. This latter smaller number of women in the higher paying industry and trade jobs is consistent with the emphasis in their high school work-training programs. The agriculturally related jobs, more popular while in high school, became nearly nonexistent after school as did clerical jobs. The fact that 19 of the 74 girls (26 percent) in the HSWE program received a work placement in the clerical area and only one girl had a job in that area a year and a half later, in particular, suggests an inadequacy and/or inappropriations of work training in this area.

TABLE 11

NUMBER AND TYPES OF JOBS REPORTED BY MILDLY RETARDED ADULTS WHILE IN H.S. 6 MONTHS LATER, 12 MONTHS LATER, AND 18 MONTHS LATER

	WORK STUDY EXPERIENCE IN HIGH SCHOOL		NON WORK STUDY JOBS IN HIGH SCHOOL		JOBS DURING 1st 6 MOS. AFTER H.S.		JOBS DURING 2nd 6 MOS. AFTER H.S.		JOBS DURING 3rd 6 MOS. AFTER H.S.	
	M	F	M	F	M	F	M	F	M	F
TYPES OF JOBS	N=107	N=73	N=69	N=41	N=89	N=49	N=75	N=38	N=70	N=37
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
FOOD SERVICE										
Cook, cook's aide	11	16	3	3	8	5	9	5	5	4
Cash register	1	2	1	0	1	2	0	3	0	2
Waiting tables	3	9	0	4	0	3	0	2	1	2
Dishwasher, cleanup	30	16	8	7	18	2	8	2	11	1
Busboy/girl	22	5	13	1	14	1	10	0	4	1
TOTAL	67	48	25	15	41	13	27	12	21	10
	28%	37%	21%	26%	28%	22%	28%	29%	23%	24%
SERVICE										
Teacher's aide, child care	2	19	3	9	0	2	0	4	0	6
Hospital aide, orderly	6	7	0	4	2	9	1	6	3	2
Recreation aide	5	3	2	0	3	0	0	0	1	1
Janitorial	43	5	19	1	24	1	15	0	21	0
Motel maide, housekeeper	0	6	2	11	0	5	0	5	0	5
Laundry	7	1	2	0	3	1	0	0	0	0
Gas station, carwash	17	0	4	0	6	0	4	0	4	0
Paperboy	3	0	9	0	2	0	2	0	2	1

Miscellaneous agency	1	3	0	0	3	3	1	0	1	0
Store clerk	6	0	1	2	0	1	2	1	1	3
TOTAL	91	44	42	27	43	22	25	16	33	19
	38%	33%	34%	47%	30%	37%	26%	39%	36%	46%
AGRICULTURAL										
Cannery	1	0	0	1	3	1	0	0	3	0
Farm, fish, nursery	2	2	14	7	4	2	1	0	0	0
Yard, grounds	10	1	11	0	6	0	1	1	1	0
TOTAL	13	3	25	8	13	3	2	1	4	0
	5%	2%	21%	14%	9%	5%	2%	2%	4%	
INDUSTRY AND TRADE										
Light assembly	18	13	5	2	13	12	16	9	11	8
Truck driver	3	0	0	0	1	0	1	0	2	0
Boxbo/girl	16	0	3	0	5	0	4	0	3	0
Light construction	6	0	13	1	16	0	9	0	6	1
Stocking, loading	14	4	4	1	8	1	5	0	6	1
Security	0	0	1	0	0	0	0	0	0	0
Miscellaneous	1	0	0	0	1	0	2	0	1	1
Mechanics, body	7	0	2	0	1	0	0	1	2	0
TOTAL	65	17	28	4	45	13	38	10	31	11
	27%	13%	23%	7%	31%	22%	40%	24%	34%	27%
CLERICAL	4	19	2	3	0	8	1	2	0	1
	2%	15%	2%	5%	1%	14%	1%	5%		2%
ARMED SERVICES	0	0	0	0	2	0	2	0	2	0
TOTAL JOBS OR PLANS	239	131	122	57	145	59	95	41	91	41

Note: Reported N's include only S's reporting jobs, occupational and career plans

The frequencies (N's) included at the top of columns 5 through 10 are also interpretable as numbers of subjects reporting having been employed during each successive six month interview. The employment percentages for the men in the interview samples were extremely stable for each retest interval, 77 percent during their first six months after high school, and 76 percent employed during both of their next two retest intervals. Corresponding employment precentages were nearly as stable for the young women in the interview samples. 62 percent employed during their first six months post high school period, 58 percent during their second six month period and 60 percent during their final retest interval.

Though the data is clear in revealing that a very sizeable percentage of the sample of mildly retarded post high school young adults were employed during each of the three approximate 6 month test intervals, (roughly three fourths of the men and three fifths of the women) to some extent the Table 11, top column frequencies are misleading in that the successive counts do not exclusively involve the sample persons, i.e., some subjects employed during one six month retest interval were not employed during the second, and vice versa. A further possible distortion is the persons included in any count could have been employed from a few days, part-time to continuously, for six months, full-time.

To more fully describe their post school unemployment, two further employement counts were made, the numbers of subjects employed at the time of each of the three follow-up interviews and the number of months subjects were employed out of the possible 18 month post school period. The first employment count was further subdivided according to whether the employment was competative or sheltered and according to whether it was full time (30 hours or more a week) of less than full time (less that 30 hours a week). Table 12 presents a summary of these employment counts for the three post school interviews.

TABLE 12

Counts (and Percentages) of Mildly Retarded Young Adults who were Full-Time and Part-Time[1] Employed in Sheltered and in Non-Sheltered Jobs at Three Six Month Intervals

	First Follow-up 6 mos. after H.S.		Second Follow-up 12 mos. after H.S.		Third Follow-up 18 mos. after H.S.	
	M	F	M	F	M	F
Sheltered	19(9)	7(11)	12(12)	10(16)	9(10)	7(11)
Non-Sheltered						
Part-Time	21(21)	9(14)	15(15)	6(10)	10(11)	9(15)
Full-Time	35(35)	16(24)	40(41)	17(27)	41(45)	15(24)
Unemployed	34(34)	34(51)	30(31)	29(47)	32(35)	31(50)
Total	99	66	97	62	92	62

[1]Part-Time = less than 30 hrs/wk; Full-Time = 30 or more hrs/wk.

[2]The first follow-up counts include 3 married females, the second 4, and the third 6, half of whom had held jobs before marrying.

The Table 12 entries reveal a generally high rate of unemployment for the mildly retarded after leaving high school with approximately a third of the males and half the females without jobs at each consecutive six month interview. For males the part-time employment decreases somewhat accounting for about a sixth of the male jobs at the end of the 18 month period with a correpsondent increase in full-time employment finally accounting for three fourths of the male jobs. Sheltered employments, nearly all of which were full-time, accounted for approximately 15 percent of the male jobs and closer to 25 percent of female jobs at each six month interview. Examination of these employments for all three interviews together revealed that 30 of the initial 194 subjects reported having worked in a sheltered setting at some time during the 18 month span of the study. The 16 persons reported working in sheltered situations at the time of the last interview constituted 17 percent of the 92 then employed. Of the 14 earlier reporting sheltered employments, 5 had moved into full or part-time competative employment, 7 became unemployed and 2 missed the last interview. Workshop employment seemed to depend in large part upon the sample location, 12 of the 16 subjects all working in the same workshop in one of the sample cities.[1]

The number of months subjects were employed during the entire period between leaving high school (June '75) and the fourth interview some 18 months later was computed from the combined interview reports of 161 subjects having at least two of the last three interviews.[2] This employment stability index is presented in Table 13 in terms of frequencies of subjects never employed, employed less than 6 months (out of a possible 18), employed from 6 to 12 months, and employed 12 or more months.

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[1]The workshop in this city contracts with nearby electronics firms to produce electronic components and apparently recruits mentally retarded subjects from local high schools, as a work experience training situation. Pay is by piece rate, and is low in comparison with wages reported by other subjects, both sheltered and competitive and, for the subjects in our sample, there was little movement from this setting to other employment. Of the 12 subjects in this workshop a year-and-a-half after high school, only one has held any other job.

[2]Their number of months employed could not be safely estimated for 33 subjects who had missed two of the last three interviews. For subjects with one missing interview their number of months employed was computed by prorating available data.

TABLE 13

Number (and Percentage) of Mildly Retarded Young Adults Who Were Never Employed, Employed Less Than Six Months, From Six to Twelve Months, and Employed More than Twelve Months During Their First Eighteen Months After Leaving High School

		Number of Months Employed			
	N	None	< 6 Mos.	6 to 12 Mos.	>12 Mos.
Males	98	4(4)	17(17)	16(16)	61(62)
Females	63	6(10)	10(16)	19(30)	28(44)
Total	161	10(6)	27(17)	35(22)	89(55)

Note: Prorated for subjects missing one of their last two interviews.

As may be seen in Table 13, only 10 of the 161 subjects for whom employment stability indices were computed reported never having any job[1] during their first year and a half after high school. However, another 27 were employed less than a third of the time making a total of 23 percent of the subjects (approximately the same percentage of males and females) unemployed more than two thirds of the time. Considering the right most column of 12 or more months employed out of a possible 18 months as representing continuous or near continuous employment after high school, little more than half (55 percent) of the sample meet this criterion; 62 percent of the men and 44 percent of the women. These employment rates are generally like those from Table 12 based on employment as each successive interview which ranged from 65 to 69 percent for the men and from 49 to 53 percent for the women. Both tables reflect an employment rate very much higher than that reported for the general 18-24 year old population by the Bureau of Census. For example, the 1975 Manpower Statistics (1965) report unemployment rates for persons in the labor force aged 16 to 19 at 15.6 percent for males and 16.5 percent for females. For persons in the age range 20-24 the employment rate is down to 3.8 percent for males and 5.5 percent for females. Though these figures may vary considerably for different localities[2] and describe a two year earlier time period, the considerable differences in employment

[1] Brief, irregular hourly jobs such as babysitting or lawn mowing were not counted.

[2] The four geographic areas providing subjects for this study generally were similar with respect to subject and parents employment data. The singular exception was the high rate of sheltered employment at the one location earlier mentioned.

rates can hardly be dismissed. They reflect not only the very unfavorable employment status of the post high school mildly retarded young adult in our sample but that of the larger national population from which they were drawn.

A further employment description is wages. Information regarding earned income was provided by 76 of the 92 subjects employed at the time of their fourth interview; 9 were not clear as to what their wages were and 5 others preferred not to answer questions about earning. Though the interviewers did not have access to employers for directly validating the reports of the 76 responding subjects, their reported earnings were consistent with the kinds of jobs reported and agreed in instances where several subjects had similar employments. These data are summarized in Table 14 as hourly wages derived from the subjects weekly or monthly salaries and number of hours worked.

TABLE 14

Hourly Wages Reported by 76 Employed Mildly Young Retarded Adults 18 Months After High School.

	MALE			FEMALE		
	N	Average	Range	N	Average	Range
Non-Sheltered						
full-time	34	$2.57	.86 - 5.00	14	$2.10	.57 - 4.00
part-time	9	$2.50	.94 - 4.69	8	$2.30	.80 - 4.87
Sheltered	6	$ .95	.12 - 2.06	5	$ .33	.07 - .70

Perhaps the most striking data in Table 14 is that for the sheltered employees whose very low wages reflect the piece rates paid at their workshops. Most of these subjects, approximately ten percent of the employed mildly retarded in our sample, had been continuously or near continuously employed in their low paying work settings since high school. The extreme sex distinction favoring sheltered males is principally attributable to the non-piecework jobs held by a few males.

Similar hourly wages were reported for the full-time and part-time competative workers but again males were typically earning higher wages. For the non-sheltered, full-time employed males the projected annual earning based on the very favorable assumption of continuous, 50 weeks per-year employment would be $5,140; for the employed women, $4,410. These "favorably estimated" earnings (which could apply only to a third of the mildly retarded in our sample) are still far below census figures

reported for employed persons in the 19-20 year old group.[1]

Two further employment descriptions relevant to considerations of the post school employments of the mildly retarded adult in our samples are the subject's job and occupational stability, how long a particular job had been held and whether the subject maintained his or her employment in the same type or level of job. Considering first job stability, the distinction needs to be made between the total number of months employed during their 18 month post school period, (reported in Table 13) and whether this employment involved one or several jobs. This distinction is expressed in Table 15 which contrasts the distributions of number of jobs held by subjects who were more continually employed (12 or more of the 18 months) and by subjects employed less than 12 of the 18 months.

TABLE 15

NUMBER OF JOBS HELD BY MORE CONTINUALLY EMPLOYED AND BY LESS CONTINUALLY EMPLOYED MILDLY RETARDED YOUNG ADULTS

No. of Mos. Employed	N	No. jobs reported for 18 mos. after school						
		1	2	3	4	5	6	Av.
>0 <12	62	20	20	11	5	5	1	2.3
≥ 12	89	36	23	14	9	5	2	2.2

As may be seen in Table 15, of the 89 subjects reporting employement for at least 12 of the 18 months, well over half (60 percent) reported having held more than one job. The average number of jobs held by this more continually employed group was 2.2 jobs; for subjects totalling less than 12 months employment in their post school period the average number of jobs held was 2.3. Approximately one sixth of subjects in either stability grouping were employed in more than three different jobs during their 18 month post school period.

Considering job stability as at least 12 months at the same job, 36 of the 161 subjects are immediately identified in the lower left cell of Table 15. To more completely describe the sample, examinations were made of the time-on-job data from all three interview questionnaires. These data are summarized in Table 16 in terms of number of subjects holding any "same job" all 18 months, 12 to 18 months, 6 to 12 months, or

[1] As reported by the Commerce Department for 1975, the median wages for 14 to 19 years old and 20 to 24 year old males were just less than $4,800 and $7,500, respectively. The median annual wages reported for these same age groupings of women were near $3,900 and $5,500. The fulltime employed subjects in our sample were nearly all 19 to 20 years old.

less than 6 months. The Table 16 frequencies are based on the same 161 subjects providing Table 15 and Table 13 data, excluding the 10 subjects who were never employed.

TABLE 16

NUMBER (AND PERCENTS) OF HIGH SCHOOL MILDLY RETARDED YOUNG ADULTS HOLDING ANY "SAME JOB" 18 MONTHS, 12 TO 18 MONTHS, 6 TO 12 MONTHS AND LESS THAN 6 MONTHS.

		Months in "Same Job"			
	N	< 6 mos.	6-12 mos.	12-18 mos.	18 mos.
MALES	94	39(41)	24(26)	15(16)	16(17)
FEMALES	57	19(33)	22(39)	12(21)	4(7)

As can be seen considering the right half of Table 16, a total of 47 subjects (29 percent of those 161 for who provided sufficiently complete interview data) maintained their job for at least 12 of their first 18 months after high school. Sixty-eight of the 161 subjects (42 percent) had held no job as long as six months. Since many of the mildly retarded subjects in the sample had obtained least skilled and lower paying jobs, staying with these jobs may not be a valid criterion for vocational achievement, in itself. A closer examination of the jobs held by the 47 more "job table" subjects revealed that 11 of these more continuously employed persons had sheltered jobs. Of the remaining 36 job stable subjects, most were employed in the generally lower paying food services category. In response to the questions regarding reason for change or loss of a prior job, less than one in six subjects reported "to get a better job"; most said they had been fired. It appears that though the longer held jobs are more frequently the poorer paying ones, the major reason that the mildly retarded young adults in our sample hadn't retained their jobs was employer, rather than employee, disatisfaction.

The interview questionnaire included a number of questions concerning the subjects anticipated employments, "What sort of work do you think you'll be doing next year?" and career expections or long range job plans, "Is there a job which you plan to hold for most of your life?" The subjects responses to these two enquires were catagorized using the same 27 job groupings developed for their reported work experience and current employments in Table 11. Summaries of expected job and career data are reported together in Table 17 with the number of subjects expecting to be employed next year in each of the 27 job groupings presented in the left section and the tabulation of long range or career expectations presented in the right section. The N's appearing at the top of each column are the number of subjects responding.

TABLE 17

OCCUPATIONAL AND CAREER PLANS REPORTED BY MILDLY RETARDED YOUNG ADULTS WHILE IN HIGH SCHOOL, 6 MONTHS LATER, 12 MONTHS LATER AND 18 MONTHS LATER.

	Job Expected (Next Year)								Career Plans							
	IN HIGH SCHOOL		6 MONTHS AFTER H.S.		12 MONTHS AFTER H.S.		18 MONTHS AFTER H.S.		IN HIGH SCHOOL		6 MONTHS AFTER H.S.		12 MONTHS AFTER H.S.		18 MONTHS AFTER H.S.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TYPES OF JOBS	N=95	N=64	N=83	N=55	N=88	N=54	N=81	N=63	N=86	N=54	N=67	N=35	N=58	N=27	N=68	N=42
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
FOOD SERVICE																
Cook, cook's aide	6	7	3	9	6	7	2	6	2	4	3	2	2	2	3	2
Cash register	0	3	0	2	0	0	0	1	0	0	0	0	0	0	0	1
Waiting tables	0	7	0	2	0	4	0	2	0	1	0	1	0	2	0	1
Dishwasher, cleanup	3	2	3	2	4	1	4	0	0	0	2	0	0	1	0	0
Busboy/girl	5	1	4	0	5	1	3	0	0	0	1	0	0	1	0	0
TOTAL	14	20	10	15	15	13	9	9	2	5	6	3	2	6	3	4
	15%	31%	12%	27%	17%	23%	11%	17%	2%	9%	9%	9%	3%	21%	4%	10%
SERVICE																
Teacher's aide, child care	0	4	1	7	0	5	0	9	0	4	1	4	0	4	0	6
Hospital aide, orderly	5	9	3	5	0	5	1	5	2	7	2	9	1	5	1	7
Recreation aide	1	2	0	1	1	1	1	1	1	0	1	1	1	1	1	1
Janitorial	11	0	7	0	7	0	14	0	2	0	8	0	6	0	5	0
Motel maid, housekeeper	1	3	1	0	0	1	0	3	1	0	0	0	0	0	1	2
Laundry	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
Gas station, car-wash	3	0	2	0	3	0	1	0	0	0	0	0	3	0	0	0

Paperboy	1	0	1	0	1	0	0	0	1	0	1	0	1	0	0	0
Miscl. agency	4	6	12	2	8	3	4	3	10	13	3	6	7	3	6	4
Store clerk, sales	4	1	0	6	4	6	2	3	2	5	1	2	1	4	1	4
TOTAL	30	25	27	21	24	22	23	24	20	28	23	22	20	17	15	24
	31%	38%	33%	38%	27%	39%	27%	44%	24%	51%	33%	63%	33%	59%	21%	57%
AGRICULTURAL																
Cannery	1	2	0	1	2	2	2	0	0	0	0	0	0	1	0	0
Farm, fish, nursery	3	0	5	2	1	1	2	1	9	0	5	0	3	0	5	1
Yard, grounds	3	0	0	0	2	0	1	0	2	0	1	0	3	0	1	0
TOTAL	7	2	5	3	5	3	5	1	11	0	6	0	6	1	6	1
	7%	3%	6%	5%	6%	5%	6%	2%	13%		9%		10%	3%	8%	2%
INDUSTRY AND TRADE																
Light assembly	14	10	6	6	12	5	11	6	6	1	4	1	5	0	12	2
Truck driver	3	0	1	0	2	0	2	0	10	0	0	0	5	0	5	0
Boxboy/girl	3	0	4	0	4	0	5	0	1	0	2	0	2	0	1	0
Light construction	6	0	10	0	7	0	7	0	8	0	12	0	6	0	4	0
Stocking, loading	5	0	5	1	10	0	8	0	1	0	2	0	5	0	3	1
Security	1	0	0	0	0	0	0	1	1	0	1	0	1	0	0	1
Miscellaneous	0	0	4	0	1	1	3	0	5	0	4	0	3	0	9	0
Mechanics, body	10	0	7	0	5	0	9	0	17	0	9	0	6	0	12	0
TOTAL	42	10	37	7	41	6	45	7	49	1	34	1	33	0	46	4
	44%	15%	45%	13%	46%	11%	53%	13%	58%	2%	49%	3%	54%		65%	9%
CLERICAL	0	0	0	8	2	9	0	11	0	6	0	8	0	5	1	8
		11%		14%	2%	16%		20%	1%	11%		22%		17%	1%	19%
ARMED SERVICES	3	2	4	1	2	1	3	0	3	1	0	0	0	0	1	0
UNEMPLOYED HOME-MAKER	0	0	0	1	0	2	0	2	0	14	0	1	0	0	0	1
				2%		4%		4%		25%		3%				2%
TOTAL JOBS OR PLANS	96	65	83	56	89	56	85	54	85	55	69	35	61	29	71	42

As may be seen directly from the percentages for the different job categories in the left section of Table 17, approximately half of the males reported expectations of employment in industry and trade jobs with over half of those remaining expecting jobs in the service area. The women, on the other hand, principally expected employment in the service area (around 40 percent), another fifth in the food service and in the clerical areas each, with only one in eight anticipating jobs in the better paying industry and trades category. Only one or two of the women ever indicated "nomemaking" as their next year's job expectation.

Looking across to the right section of Table 17, the longer range career plans of our subjects reveals interesting differences between expected short range (next year) jobs as their long term career plans. For example, at the time of their fourth interview, 65 percent of the men named industry and trade jobs as their career plans whereas only 53 percent had expected employment in these jobs "next year". Similarly 57 percent of the women named service jobs as their career plans compared to only 44 percent expecting these jobs next year. At the same time, the food service jobs received much less mention as a long range employment plan, falling to only 4 percent for males and 10 percent for females. Recalling that nearly a fourth of both sex groups continued to report holding jobs in this category (see Table 11) a "rejection" of it as a career job is apparent. On the other hand, whereas, only one or two women held clerical jobs a year after high school, approximately a fifth of the women continued to expect clerical jobs "next year" and the same relative number named clerical work as their career expectation. A further interesting change is the considerable decline in homemaking as a "career" goal from a fourth of the girls in high school naming homemaking as their long range "employment plan," to only one respondent naming it after high school.

In addition to the occupational titles or groupings, the occupational level of jobs held by and expected to be held by our subjects was examined using the classification system presented earlier in describing the post high school sample. (Also see Appendix D.) Using this system all current and expected employments reported by our subjects were classified into one of four skill levels; unskilled, semi-skilled, above semi-skilled, and skilled. Count and percentages of subjects holding jobs in different skill levels at each of the three post high school interviews is presented in Table 18. The number and percentages of unemployed subjects are also reported.

TABLE 18

NUMBER (AND PERCENT) OF MILDLY RETARDED YOUNG ADULTS EMPLOYED AT DIFFERENT OCCUPATIONAL LEVELS, 6, 12, and 18 MONTHS AFTER HIGH SCHOOL.

OCCUPATIONAL LEVEL	6 mos. post H.S.		12 mos. post H.S.		18 mos. post H.S.	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
Unskilled	32(50)	12(38)	29(44)	12(37)	21(35)	8(26)
Semi-skilled	25(38)	13(41)	26(39)	14(43)	25(40)	13(42)
Above Semi-skilled	5(8)	7(22)	9(14)	7(22)	7(12)	10(33)
Skilled	3(5)	-	3(5)	-	7(12)	
Total Employed	65(66)	32(49)	67(69)	33(54)	60(66)	31(50)

As may be seen from the lower column entries, the percentage of employed men and women in the sample remained generally constant over the 18 month follow-up period, approximately 65 percent of the men and nearer 50 percent of the women. These employment figures included part time and sheltered employees (together accounting for approximately 25 percent of all jobs for both sexes), and are not too different from the percentages reported in Table 8 for the older post-high school sample.

In terms of occupational level there appears to be a decreasing proportion of employed subjects holding jobs in the lowest skill level category (jobs requiring minimal training such as kitchen helpers, janitorial workers, bus boys, and sheltered (workers) and a corresponding increase in employment at more skilled jobs such as cook, millworker, nurses aide, and teacher aide. For the combined male and female subjects the unskilled level percentage fell from 45 percent six months after high school to 32 percent one year later. For the same period the above semi-skilled level percentage rose from 16 percent to 27 percent.[1]

[1]Though comparisons with the Table 8 data favor the younger, less time out-of-school follow-up subjects in terms of having a lower proportion of unskilled jobs, (46 percent for the 248 employed post high school subjects), interpretations suggesting more accessible job markets or better vocational preperation would be premature since the two samples differ in numerable ways. Among these is the difference in subject selection in the two samples, the younger follow-up sample identified toward the end of their final high school term.

Changes in occupational levels of jobs our subjects held during their 18 month post-high school period and in the expectations of jobs which they would hold the following year and in later years were also examined by tracking individual responses to the same questions asked on successive interviews. Table 19 presents summaries of the extent and direction of the changes. The tabled entries are the numbers and percents (in parenthesis) of subjects making the different changes. The upper portion of Table 19 refers to changes in the occuaptional level of jobs held from the first to the last interview. Subjects with fewer than three interviews were not counted. The occupational levels referred to are those based on the categories reported in the previous table (Table 18). In reporting the data a distinction was made between subjects reporting jobs one occupational category different from their earlier report and subjects reporting changes of more than one category.

TABLE 19

CHANGES IN THE OCCUPATIONAL LEVEL OF CURRENT JOBS HELD, EXPECTED JOBS, AND LONGER RANGE CAREER GOALS REPORTED BY MILDLY RETARDED YOUNG ADULTS DURING THEIR 18 MONTH POST-HIGH SCHOOL INTERVIEW PERIOD

Changes in Occupational Level of Jobs Held

	No change	Increased Occupational		Decreased Occup. Lev.	
		1 level	>1 level	1 level	>1 level
MALES: N=81	32(40)	16(20)	9(11)	16(20)	8(10)
FEMALES: N=47	22(47)	13(28)	1(3)	11(23)	0

Changes in Occupational Level of Job Expected Next Year

	No change	Increased Occupational		Decreased Occup. Lev.	
		1 level	>1 level	1 level	>1 level
MALES: N=104	37(36)	21(20)	13(13)	26(25)	7(7)
FEMALES: N=65	26(40)	21(32)	4(6)	11(17)	3(5)

Changes in Occupational Level of Longer Range Career Plans

	No change	Increased Occupational		Decreased Occup. Level	
		1 level	>1 level	1 level	>1 level
MALES: N=87	30(34)	16(18)	8(9)	17(20)	16(18)
FEMALES: N=48	21(44)	8(17)	7(15)	7(15)	5(10)

As may be seen from the upper section, Table 19 data, 40 percent of the males and 47 percent of the females remained employed at the same occupational level during the 18 month follow-up period. During this time, approximately 20 percent of both groups changed jobs to slightly higher occupational levels, an equal number to slightly lower occupational levels.[1] A more substantial change, both upward and downward, was reported by the remaining 21 percent of males but only one female changed her occupational level this much. Considering that nearly half of our subjects were initially employed in jobs in the lowest occupational category, the pattern represents considerable stabilization at that lowest level, particularly for females. Additional job training, a requirement for upward mobility in most jobs, is either not easily accessible or unavailable to most of our subjects. Interviewer inquiries revealed that only one in four of our subjects had received post-high school vocational training during their 18 month post school period, half of these sheltered workshops. At the same time nearly two thirds of those interviewed (62 percent) said that they would like to receive more job training.

The frequency and percentage figures for the middle section of Table 19 are based on subject responses to the interview question "What kind of work do you think you will be doing next year?" As with the preceding Table 19 data, these figures are based on comparisons of each subject's responses on all of his or her interviews over the 18 month period. Subjects with fewer than three interviews were not counted.

The change data relating to occupational level of expected jobs (middle section of Table 19) are generally similar to those for the jobs currently held though more upward change was noted. Thirty-six percent of the males and 40 percent of the females indicated jobs at the same occupational level. Twenty percent of the males and 32 percent of the females mentioned jobs at slightly higher occupational levels whereas 25 percent of the men but only 17 percent of the women (a reduction of half) mentioned jobs at slightly lower occupational level. Ten percent of all subjects anticipated jobs at a substantially higher skill level compared to 5 percent expecting substantially lower skill levels. More generally, 35 percent of all subjects anticipated higher skill levels, and another twenty-five percent lower skill level jobs.

The bottom section of Table 19 presents the change data based on the interview question concerning longer range job or career plans. In general our subjects' responses to these more eventual employment status enquiries were no more optimistic than those for more immediate jobs. Thirty-four

[1] Differences between these data and those of Table 18 reporting changes toward proportionately fewer lowest skill level jobs, are due to inclusion of first interview employment data in Table 19 to permit greater time "coverage." At the time of their first interview (while still in high school) a greater proportion of subjects (approximately half) reported jobs in the semi-skilled category than they did six months later.

percent of the males and 44 percent of the females didn't change their expectation over the 18 month period. Approximately 30 percent of both groups expected to eventually have jobs at higher skill levels than they had earlier thought, but then the same number anticipated jobs at lower skill levels. This latter downward readjusting of expectations after high school is perhaps to be expected due to our subjects becoming more aware of barriers such as educational requirements which they are unable to meet for higher level occupations. Comparing job and career expectations with jobs held a year and a half after high school revealed 56 percent of our subjects expecting jobs at their present occupational level and only a few subjects (7 percent) expecting a lower level job. Comparing their present job (18 months after high school) with their long range employment plans reveals 43 percent of the young adults intending or expecting to be employed at a higher occupational level, but another 38 percent expecting to remain at their present job skill level. It should be noted that fully half of those interviewed after 18 months out-of-school answered by saying that they didn't know or had no long range job plans.

As with the vocational sections of the interview schedule, the four administrations of interview questions dealing with our subjects social satisfaction and expectations yielded a considerable amount of data regarding their anticipated continuation or changes in living arrangements, friendships and leisure time activities. As reported earlier this subsection, the proportion of subjects living away from their parents increased upon successive interviews from 6 percent still in school at first testing to 9 percent six months later, to 14 percent a year after school, to 23 percent at final testing. Between each interview approximately ten percent of the subjects changed their living arrangements some moving toward greater independence, a smaller number returning home. The major reasons given for their dissatisfaction with living at home was "lack of freedom." The most popular reason given for moving out by those who did, was "wanting to try living away from home." The percentage of men and women living away from home were generally the same until the final interview when the percentage for females increased to 29 percent compared to more modest increase to 19 percent for the males. This difference does not appear to be related to marriage. As noted earlier only 15 of the finally tested 154 subjects were married at the time of their last interview, 6 of the men and 9 of the women. With respect to "having a special boy or girl friend" however, nearly twice the proportion of women (57 percent) as men (33 percent) said "yes."

In so many respects, moving away from home is a most important change for young adults. At the time of their fourth interview, approximately half of the living-at-home subjects indicated dissatisfaction with their present living arrangements and nearly 90 percent said that they wanted to be on their own. A limiting factor in leaving home, of course, is employment. Nearly all of the subjects who were living independently

were either full time employed or married. This problem of financial dependency was frequently mentioned by most subjects. In response to the interview question "what would need to happen before you could be on your own?", nearly all responding subjects referred to "having a job and enough money." Having and managing money was considered by most subjects as a part of being independent as well as one of its prime determinates. In response to the set of paired comparison questions regarding "what is the best part about having your own place the alternative involving "control of one's own spending" ranked equally high with increased privacy and social freedom.

Responses to interview questions concerning the follow-up subjects' use of leisure time, what the subject did, with whom and how often, were summarized using the same four categories of leisure time use developed for the post high school sample data. These categories were: 1) principally solitary passive, nongoal oriented activities such as watching television, 2) active nongoal oriented activities, principally solitary, such as solitary games, movies, eating out, playing tape recorder, minimal visiting with friends, 3) a single active goal or product oriented activity involving other persons such as a group sport or game, active membership in a social group, involvement (on a regular basis) in a hobby such as sewing, gardening, mechanics, camping, fishing, partying, and 4) multiple active goal or product oriented activities with others (two or more code 3 activities). The distribution of follow-up subjects within each of these four categories based on the interview data from their three post high school interviews is presented in Table 20.

TABLE 20

USE OF LEISURE TIME BY YOUNG MILDLY RETARDED ADULTS ACCORDING TO 4 LEISURE TIME USE CATEGORIES 6 MONTHS AFTER SCHOOL, 12 MONTHS AFTER SCHOOL AND 18 MONTHS AFTER SCHOOL.

Leisure Use Categories	6 month post H.S.		12 mos. post H.S.		18 mos. post H.S.	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
1. Solitary, passive non-goal oriented activities	11(12)	00	5(5)	1(2)	11(12)	10(16)
2. Solitary or family; less passive non-goal activities	32(34)	35(60)	35(35)	33(52)	24(26)	20(33)
3. Outside of family; active goal activity.	23(25)	8(14)	45(45)	22(35)	25(27)	14(23)
4. Outside of family; multiple active goal activities.	28(30)	16(28)	15(15)	7(11)	33(36)	17(28)
TOTAL	94	59	100	63	93	61

As may be seen in the Table 20 data, approximately half of the subjects were categorized in the two lowest categories reflecting a leisure time use marked mainly by interactions limited to within the family and involving principally passive activities. This distribution generally maintained during the 18 month follow-up period, though an increase in subjects categorized at either extreme leisure time use categories at the time of their final interview is evident, more subjects becoming considerably active (or inactive) in their leisure pursuits. This polarizing, in part due to changes in living arrangements and in the continued employments and unemployements of subjects, appears to be equally true for men and women.[1] More generally, interview data reveal the follow-up subjects, as a group, to be somewhat less socially active than the post follow-up subjects reported earlier. Quite possibly the fact that this latter group is older and has been out of school longer accounts for much of this difference. However, very few of the follow-up subjects expressed dissatisfaction with their use of free time, one-third being neutral and two-thirds expressing satisfaction.

On all interviews, about half the subjects said that they plan to try new hobbies, sports, or other activities. Of those with announced plans, few (only 17 percent) reported (at the time of their next interview) having actually established that new activity or hobby; fully half admitted that they hadn't tried. When asked on a later interview question about the various "things" that they might do during the next six months, of alternatives such as "travel", "buy something special", "find or change jobs", etc.,[2] nearly half chose leisure related activities. On their subsequent interviews half of the subjects indicated they had at least partial success in accomplishing their intended activity. The principal reasons given for not realizing their intended acitivity were personal discouragement and lack of money.

An area related to both socialization and vocational achievement as a facilitator or inhibitor is means of transportation, the means available to our subjects "to get around," to go back and forth to work, shopping, visiting, etc.[3] In response to the interview question "How do you get around?", a fourth of our subjects (39 percent of our women compared to 13 percent of our men) indicated they were still dependent

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[1] Another factor is that as time went on, the less socially outgoing subjects may have lost contact with old school friends, and didn't replace them easily.

[2] These alternatives were presented pictorially in two sets of six pictures depicting different activities. Subjects were to indicate one or more activity from each group or offer a substitute intended activity.

[3] Examination of the relationship between the five hierarchial categories of transportation described above and use of leisure time and employment history within the pooled post high school and follow-up samples, however, yielded only low near zero correlation coefficients, due in part to the differences between samples with respect to need and availability of public transportation.

upon others at the time of their fourth interview, 18 months after high school. Another fourth of our subjects reported they rode busses, somewhat fewer either biked or hitched rides, and nearly a third drove themselves. Again, men were more heavily represented in this latter category, 43 percent of the men as compared with only 13 percent of the women. Slightly higher proportions of our men (59 percent) and of our women (18 percent) said they had drivers licences. Thirty-one men and 33 women indicated that they had no immediate plans (within a year) to obtain a licence.

One part of the subject's out-of-home activities reported on their interviews was their new friends. Though these reports could not be verified and may be inflated somewhat in the direction of socially desireable positive answers, nearly half of the subjects, non the less, reported no new friends at each six month questioning. Most new friends were met at work, others through recreational activities and through relatives and a small number through neighborhood and church related activities. Possibly these last two settings represent a more closed social system with fewer opportunities to meet new people. The non-employed subjects continue to appear disadvantaged. In the context of expanding friendships, as was true in the broader contexts of increased independence and leisure time activities, the importance of having a job for most of our young mildly retarded adults is primary. Though a subject's ability to present him or herself in the job interview situation is distinct from the kind of socialization data gathered in the subject interview, success here is entry to a possible spiral of social growth opportunities. Failure to obtain employment can precipitate a corresponding negative spiral. As will be noted in the following section which describes subject classifications as related to the "validation" of the forced choice Inventory, only rarely did a subject simultaneously receive a high vocational achievement classification and a low socialization classification or vice versa.

VI. FORCED CHOICE SELF DESCRIPTION INVENTORY (ANALYSES)

A. Internal Analyses:

As described more fully in Procedures Section II A2 the Forced Choice Self Response Inventory (FCI) consisted of 72 statements, these statements grouped into 12 subsets of 6 statements each. Within each subset each statement was paired with the other five statements, each pairing of statements constituting an item. Since there are 15 combinations (not counting order) of 6 things taken two at a time, each subset of six statements produced 15 items, the twelve subsets producing the 180 item FCI. In compiling the test each statement appeared 2 or 3 times in a first position (A) and then 3 or 2 times in a second position (B). Items were ordered so that no statement appeared in two consecutive items.

Generically the FCI developed in response to a need to more objectively identify successfully adjusted and poorly adjusted mildly retarded young adults. The test rationale was that this identification could be made in terms of those personal behaviors, attitudes and values which discriminate between these two groups. The test format was one requiring the subject to select one of two statements as being either "more true" of him or her self or better describing his or her beliefs. Subsequent portions of this section will describe the keying and validation of the FCI and examination of changes in test reported behavior, attitudes and values during an 18 month post school period. This first subsection reports test data analyses relating to FCI task understanding, retest stability, longer term stability and similarity of subject response for different samples.

1: Task Understanding: Perhaps the first question to be asked of any new information seeking procedure is, can that procedure be managed by the intended respondents? Are the instructions and stimuli sufficiently well presented and understood by test takers that their responses will denote other than failure or inability to do that which is asked of them? This is always a concern in a forced choice task requiring simple, unelaborated, understanding. And it is particularly a concern in testing retarded persons and requiring them to discriminate among verbal stimuli.

In collecting the data for the 384 post high school subjects, 15 additional prospective subjects otherwise meeting the sample criteria of having been enrolled in public school special education programs for reason of mental retardation and having been out of school at least one year, provided "unusable" FCI data. Eleven of these were students who revealed an inability or unwillingness to respond meaningfully to the "choose A or B" instruction. Three of these person either persisted in patterns of A-B-A-B-A-B-- or with response of either letter followed by extended blocks of the alternative letter, and then again, blocks of the first letter. Since in preparing the FCI items, position effects and item orders had been "randomly" shuffled, the occurence of such repeated patterns, precludes content related response, particularly when supported by the examiner statements describing the subject's behavior. Three others

persisted in giving very rapid responses, (i.e., responding before the A-B alternatives had been read), and five others were too tired or restless to complete the long, somewhat repetative, 180 item test.[1] The remaining four "lost" subjects were either due to interviewer recording errors in filling in the IBM answer sheet, or to lack of interviewer ratings. During the course of the follow-up testing of the high school sample only four FCI's were identified as "unusable" on the basis of interviewer comments that their subject was either unattentive, unable to remain awake, or lacked task comprehension.

The foregoing suggests that the 180 FCI test may be "unmanageable" for two or three percent of the population of former special education students. A more objective criteria for task understanding is the occurrence of a "perfect" or noncontradictory sequence of preferences within an FCI subset. In a 15 item subset of six statements, each matched with every other one, a perfect sequence would be one in which the most preferred statement was chosen five times, the next most preferred statement chosen four times, the next most preferred chosen three times, the next, two times, the next, one time, and finally none, yielding a 5, 4, 3, 2, 1, 0 sequence. As may be apparent, "order" is not relevent in identifying perfect sequences. The only requirement is that each frequency appear once and only once.

It should be noted that two conditions are required for perfect or near perfect patterns, the first dealing with item content and the second with subject response. To achieve a perfect pattern the items must be scalable, that is, unidimensional. Items which cannot be ordered on some common "underlying" continuum cannot, except by chance, yield perfect patterns. Though the FCI items were not prepared to achieve a general (across subjects) unidimensionality within subsets of FCI items (the test development paradigm required only grouping by general areas), it is, of course, possible that respondents are able to set their preferences for subsets of items along some unifying criterion, either implicitly or explicitly. In usual scaling studies a perfect pattern is considered evidence for unidimensionality.

The second condition is that the respondents must rationally perform the task discriminations, attending, in effect, to that common underlying criterion in choosing between the paired statements. In a set of six statements, the probability of obtaining a "perfect" pattern by chance is 2^{10} or roughly once in 1,000 times. Since the total FCI consisted of 12 item subsets involving six items, the probability of one or more "perfect" patterns by chance is .012 or approximately once in a hundred. Applying these probabilities for the post high school subjects completing the FCI, only three or four perfect patterns would be expected from this sample due to chance.

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[1] On subsequent interviews the FCI testing was administered in sections during different "breaks" from the interview questions. Also the test items were reduced by approximately one third.

An examination was made of the number of "perfect" response patterns produced by the 384 post high school subjects with scorable FCI answer sheets. These frequencies are summarized in Table 21 according to FCI subtest for males and females separately in each of the five post high school samples.

TABLE 21

NUMBER OF PERFECT FCI PATTERNS

MADE BY MILDLY RETARDED YOUNG ADULTS IN FIVE POST SCHOOL SAMPLES

SAMPLE	GEN. SOC.	SELF CARE	MNG. MONEY	WORK ORIENT.	VALUES	ATTRIB. SUCCESS	TOTAL	aver/ subj.
Eugene(Pilot)								
Males(n=42)	23	22	16	44	39	---	144	3.4
Females(n=33)	19	16	17	20	18	---	90	2.7
Salem								
Males(n=39)	29	22	16	26	20	7	120	3.1
Females(n=34)	15	17	17	26	23	9	107	3.2
Portland								
Male(n=41)	19	19	21	33	13	8	113	2.8
Females(n=39)	28	19	16	18	18	2	101	2.6
Madison								
Male(n=38)	24	15	16	23	19	6	103	2.7
Female(n=19)	14	10	7	20	13	7	71	3.7
Columbus								
Male(n=56)	18	18	21	40	11	7	115	2.1
Female(n=45)	16	8	12	19	13	8	76	1.8
Total								
Male(n=216)	113	96	90	166	102	28	595	
Female(n=168)	92	70	69	103	85	26	445	
All (n=384)	205	166	159	269	187	54	1040	
Av./subtest/subj.	.27	.22	.21	.24	.25	.18	.23	

Note: Tabled entries reflect the number of six statement sets contained in each subtest. The Attribution of Success subtest contained only one set of six statements, the Work Orientation subtest contained three sets of six statements. All other subtests contained two sets of six statements.

Unmistakenly, the occurences of perfect patterns far exceeded the chance expectation of only an occasional perfect pattern. In all six FCI subtests, perfect FCI item subset response patterns occurred from a fourth to a fifth of the time. A total of over 1000 perfect patterns were produced by 384 subjects, 323 of all subjects (84 percent) having at least one perfect pattern, approximately half of the subjects producing three or more perfect pattern. The average number of perfect patterns for the total sample was 2.71. In general, this average remained roughly similar for the five different post high school samples ranging from an average of just above three for the Madison subjects to just below two for Columbus subjects. For the total sample, females and males were nearly alike, averages of 2.65 and 2.75, respectively. Fatigue factors did not appear to enter in, either; there were nearly as many perfect patterns for the last three administered subtests as for the subtests administered earlier. Further inspection of the data revealed that most of the non-perfect patterns deviated from perfect by only one reversal. The chance probability for this close (to perfect) pattern was roughly once in 60 for a set of six items.

Clearly, the subjects' pattern of responding cannot be accounted for by chance behavior. Stated more positively, it is to be concluded that the task requirements of the very lengthy 180 item FCI were not beyond the response capabilities of the mildly retarded young adults tested in the study. On all subsections of the test they were producing "perfect" and "near perfect" patterns far in excess of chance occurrence, indicating that they were rationally managing the paired performance task, i.e., they were choosing alternative statements within subsets of 15 items consistent with some underlying criterion of hierarcal preference for these items.

2. Retest Stability: A second basic question to be asked of any new measurement procedure is that of reliability, an accounting for variance in test scores due to extraneous variables. The repeated measurement testing design provides a direct statement of the stability of subject responses in the testing situation and permits an estimate of test reliability in terms of the correlation between the initial and second sets of obtained scores. Since the retest scores are host to a myriad of possible change variables such as diural situational and subject changes, changes in test familiarity and fatigue and in interviewer-interviewee interactions, together with actual subject changes in the variables of concern during the retest interval, this reliability coefficient is considered a more conservative (lower) estimate of test reliability than coefficients based on single test administrations.

The FCI retest data was obtained from 80 Portland post high school subjects who were retested within a week to ten days after their initial test. The testing was completed by two interviewers each testing half of the subjects. The retesting was planned so that half the subjects were retested by a different interviewer than administered their first test, half by the same interviewer. The general background interview questionnaire was administered only during their first testing. The second testing session only involved the retest of the 180 item FCI. Since examination of the retest changes in FCI scores revealed very similar distributions for both subjects twice tested by the same interviewers and subjects tested by different interviewers, the data were pooled for the total sample of 80 subjects.

The Portland test-retest data was examined a number of ways relevent to the stability and change of FCI responses. First an item by item, subject by subject count was made of the numbers of males and females chosing a different response on their retest. These changes appeared fairly frequent, nearly one third of the 180 retest A-B choices were different from those of the initial testing for both sex groups. Considering only the 30 items finally retained for the keyed FCI test (see, subsection IV B, below), this change ratio reduced to approximately one fourth. The product moment correlation coefficient computed for the test-retest 30 item FCI scores was .848 for the males and .838 for the females. The male and female means for the 30 item FCI scores remained very nearly the same, respectively, for the initial and second administration data. The summary data for these test-retest comparisons are presented in Table 22.

TABLE 22

Test-Retest Correlations Between 30-Item FCI scores Based On FCI Readministrations After a One to Two Week Interval. (Portland Sample)

	Males (N = 41)			Females (N = 39)		
	$\bar{x}$	S.D.	r	$\bar{x}$	S.D.	r
Test	17.91	4.25		17.53	4.40	
Retest	17.95	4.69	.848	18.16	4.25	.838

A further examination of the 180 item subject by subject test-retest data was made in terms of the stability of item difficulties; that is, the extent to which the proportion of subjects choosing A or B response for each item remained the same during the one to two week period. To summarize this data, the test and retest item difficulties were correlated within each of the six subtests. These product moment coefficients are presented in Table 23 together with the average item difficulties for the two FCI administrations. As may be noted in that table, all coefficients were in the mid .80's and above with a median r of .885. The subtest means were also very nearly the same for all subtests. Apparently group preferences for the different items' alternatives remained very stable over the two week retest period.

TABLE 23

CORRELATIONS BETWEEN ITEM DIFFICULTIES FOR SIX FCI SUBTESTS BASED ON REPEATED ADMINISTRATION OVER A ONE TO TWO WEEK INTERVAL.

Portland Data (N=80)

	Gen. Soc.	Self Care	M.g. Money	Work Orient	Values	Attrib. Success
No. of Items	30	30	30	45	30	15
Average Item Difficulty[1]						
First Testing	.51	.50	.52	.57	.56	.52
Second Testing	.52	.49	.55	.59	.55	.53
Test-retest r	.96	.88	.84	.89	.95	.85

[1]Percent of subjects choosing response A

The statement preference scores were also computed for the 72 FCI statements for both the initial and second FCI administration to the Portland sample. As noted earlier these preference scores are essentially tallies (counts) of the number of times each statement is chosen as an alternative in an FCI item. Since each statement appeared five times, preference scores ranged from 0 to 5. The stability of these preference scores over the two week retest period was examined by computing the average change, ignoring direction,[1] in preference scores for each statement. Table 24 presents a listing of these statement preference score changes for males and females and for the two sex groups combined.

As may be seen from the Table 24 entries changes in preference scores; not counting direction, were generally small for all statements; the largest average absolute difference was 1.2, the least, .66. Inspection of the individual subject preference score changes revealed very few increases or decreases of more than two in the number of times a statement was chosen on the two FCI administrations. Over one third of the nearly 6000[2]

[1]Algebraic changes would be misleading here not only in summarizing changes made in different directions by different subjects, but because they are necessarily zero for each subject for every subset of his or her six preference scores.

[2]80 subjects, 72 statements/subject yields 5760 preference scores each administration.

TABLE 24

AVERAGE CHANGES (IGNORING DIRECTION) IN FCI STATEMENT PREFERENCE SCORES OVER A ONE TO TWO WEEK INTERVAL

Portland Data (n=80)

Statement	Mean Change in Preference Score: Males (N=41)	Females (N=39)	Total (N=80)
1	.93	1.03	.97
2	.71	1.10	.90
3	.93	1.13	1.02
4	1.17	.92	1.05
5	1.17	.92	1.05
6	1.00	1.00	1.00
7	.88	.95	.91
8	.95	.77	.86
9	.98	.82	.90
10	1.10	1.08	1.09
11	.93	.79	.86
12	.88	.97	.92
13	1.02	1.21	1.11
14	.88	.79	.84
15	1.12	.77	.95
16	.83	1.18	1.00
17	.98	.90	.94
18	.88	.95	.91
19	1.02	.85	.94
20	1.10	.97	1.04
21	1.00	1.18	1.09
22	1.12	1.31	1.21
23	.95	.97	.96
24	1.24	1.08	1.16
25	1.17	.95	1.06
26	1.15	.87	1.01
27	1.22	.90	1.06
28	1.29	1.15	1.22
29	.88	.92	.90
30	1.12	.90	1.01
31	1.07	1.18	1.13
32	1.00	1.13	1.06
33	1.17	1.13	1.15
34	.73	1.13	.92
35	1.10	.95	1.02
36	1.22	1.31	1.26

Statement	Mean Change in Preference Score: Males (N=41)	Females (N=39)	Total (N=80)
37	.66	1.08	.86
38	.88	.59	.74
39	1.00	1.33	1.16
40	.95	1.10	1.02
41	.95	1.10	1.02
42	.83	.90	.86
43	1.12	1.08	1.10
44	.95	1.05	1.00
45	1.10	.90	1.00
46	.95	.87	.91
47	1.15	.85	1.00
48	1.20	1.15	1.17
49	1.24	1.15	1.20
50	.90	1.10	1.00
51	1.27	.90	1.09
52	.98	.95	.96
53	1.12	1.18	1.15
54	1.02	1.18	1.10
55	.93	1.08	1.00
56	.61	.97	.79
57	.85	.92	.89
58	.76	.67	.71
59	1.02	1.13	1.07
60	.95	1.23	1.09
61	1.22	.87	1.05
62	1.00	.92	.96
63	1.12	1.13	1.13
64	1.07	.85	.96
65	1.07	1.00	1.04
66	1.05	.97	1.01
67	.80	1.00	.90
68	.98	1.10	1.04
69	.93	.72	.82
70	1.02	1.05	1.04
71	1.15	.97	1.06
72	1.12	1.26	1.19

test-retest pairs of preference scores contained identical scores. Males and females were very similar in their preference score retest stability. The average absolute change for both sex groups was 1.01. For the 15 statements selected for both the male and females preference score totals (see C 3 below) this average reduced slightly to .98.

3. Eighteen Month Retest Stability: An examination of longer range FCI retest stability was made comparing the responses of the 53 subjects from the Eugene pilot sample who were retested by different interviewers on a third of their FCI items a year-and-a-half after their initial testing. Since this first sample had been out of school an average of 22.3 years at the time of the initial testing and nearly 24 years at the time of their retest, it may be expected that the subjects were perhaps more stabilized with respect to their behaviors, attitudes, and values included in the FCI than would younger more recently out-of-school subjects. The brief employment and "living arrangement" data collected at the time of the retesting generally support this expectation. Twenty-four of the 53 subjects were employed at the same job at the time of both interviews, another 14 reported being housewives on both occasions and four others remained unemployed. Of the remaining eleven subjects, two had changed jobs, three had found new jobs and six were no longer employed. This employment stability was considerably higher than that for the high school follow-up data (see Table 16). However, even for the continually employed, a third of these subjects reported a very important change, that of moving out of their parents' home. This move toward independence from family was also true for three formerly employed women who became housewives. Together, major changes in employment or living arrangements appears to have occurred to at least one of three of the retested subjects.

The stability of the FCI responses for this retest sample was examined in terms of occurence of individual subject item response change and in terms of FCI score test-retest correlations. Because of the large number of FCI items deleted from the second testing it was not possible to examine preference score stability. Counts made of the number of item response changes revealed that nearly a third of the FCI items were responded to differently after the 18 month retest interval. This change rate, higher than that for the two week retest data, was similar for both males and females with nearly all of the 53 subjects changing between 20 and 40 percent of their items responses. Only one male and one female changed their response to as many as half the items. Nor were very special differences in response stability noted for the different FCI subtests; the average change for the retested items in the subtests remained at very near 30 percent for all five FCI subtests.

The FCI scores computed were those for a trial 50 item key developed earlier for the pilot sample. The correlation between these scores for test and retest FCI was .74 for males and .59 for females. Considering the long 18 month retest interval and the possibly related changes in a number of the subject's vocational and social living activities during their retest period (and possible maturational changes, etc.) these retest coefficients are not particularly low. Apparently, even though on the individual item level many responses were changed; their cumulative effect on the subject's relative position in his or her group on the basis of the summarative FCI score is more minor. Generally, even after 18 months, subjects in the pilot sample, particularly males, who had selected more of the keyed responses on the FCI, again selected more of the keyed responses, and subjects earlier selecting fewer keyed responses similarly continued to do so.

4. Intersample Stability: The question of generality of FCI responses across the five different post high school samples tested was examined in terms of the average statement preference scores made by males and females in those five samples. These sample averages grouped in sets of six statements are presented in Table 25. The wording of the FCI statements in the table are abbreviations of the fuller FCI statements used in the test itself (see Table 1). The three column groupings in the table are first for the five samples of males, then for the five samples of females, then for the total males, total females, and combined total subjects. It should be noted in reviewing this table that the consideration of any statement's preference score tacitly includes reference to the other five statements in its subset which served as alternatives. It should further be noted that if one statement within a subset captures most of the preference responses, earning a high preference score, other statements must accordingly have lower preference scores since the sum of all preference scores in a subset is fixed at 15, the number of FCI items in each six statement subset. For reader convenience statements within a subset are ordered from high to low in terms of their total subjects' average.

Perhaps the most general statement which may be made regarding the Table 25 entries is the extensive sameness of the order of preference for statements within a subset by the five male and five female samples. This is evident by comparing column and noting the typical decending order of six preference score means within all of the 12 subsets of statements. Though some disorder is evident this is generally quite minor. The first statement in the second subset, statement 7, "You believe in helping others", for example, is a unanimously most preferred statement for all samples, as is statement 54, "You are interested in doing your job well." Statement 18, "You know how to keep yourself fit" and statement 41, "You quickly learn how to do your job" are most preferred within their subsets for all 10 subjects samples with only a single exception. In all other subsets a pair of very nearly equal statements (in terms of their average preference scores) together account for all or very nearly all most preferred position in the thirteen columns. Examples include the preferred statements 1, "Likes to feel useful" and 3, "Tries to follow the rules" in the first subset, and statements 43, "You usually get your work done" and 46 "You'll work hard if they treat you fair" in the Work Orientation subtest.

This same across-sample, across-sex generality operates similarly for the least preferred statements. Statements 38 "You'll quit working when you have enough money" and 37 "You feel you should never do more than you're paid for," and statements 56 "Having good luck" and 66, "Getting the breaks" (as important for having a good life), and statement 68, "They had good luck" (as a reason for others succeeding) are examples of statements clearly receiving the fewest choices in all ten samples. Further examples of statements infrequently chosen in all samples are statement 2, "You think a person should get what he can," statements 8, "You believe in evening the score," and 12, "You'd like to be the leader whenever you can", statements 31 "You are surprized when you run out of money" and 34 "You borrow money when it's necessary," and statement 61 "Having money" (as important for having a good life).

In general, the Table 23 data reveal very considerable intersample agreement with respect to both male and female preferences for the various statements used as alternatives in the FCI. Further reference to this preference score data will be made in subsection IVC in reporting the self discriptions of young mildly retarded adults both for the present post school samples and for the high school follow-up sample.

B. Item Keying Procedures:

1. FCI Items: Several different approaches procedures for keying selecting and keying discriminating FCI items were tried during the three year project period. The first was the retention fo the male and female 50 item keys developed from the Eugene pilot sample. These two keys were composed of the 50 best high-low group discriminating items. Total FCI scores based on these 50 item key correlated near .80 with FCI counselor ratings obtained for the full sample. Though it was expected that these high coefficients were somewhat inflated since the counselor ratings also identified the high and low subject groups used for item selection, the fact that these relationships extended to the middle rated subjects who had been excluded from the keying samples suggested only minor procedural inflation. The directly testable expectation that the pilot key-counselor rating correlations would extend to other samples of similar background retarded youth, however, was far from realized. The correlations of FCI scores (based on the initial plot key) with counselor ratings for a new post high school sample (Salem) tested some 18 months after the pilot sample, shrunk to the .40's and .20's. It was concluded that for the FCI scores to have predictive value broader keying sample was required.

Though the measurement literature is limited with respect to discussion and development of cross-validation paradigms, an early reported symposium (Mosier, Cureton, Katzell, and Wherry, 1951) presented a "double" cross-validations design for item selection adaptable to the present FCI data. Essentially, this "double" cross-validation design involved: 1) dividing the validation samples into random halves, 2) examining item validities separately within each half, and 3) selecting and keying those items consistently valid in both half samples. The "retention" criterion suggested by these authors was item-criterion correlations exceeding the .10 probability level in both half samples.

E = Eugene
S = Salem
M = Madison
P = Portland
C = Columbus

TABLE 25

AVERAGE PREFERENCE SCORES FOR 72 FCI STATEMENTS FOR 5 SAMPLES OF MILDLY RETARDED ADULTS

STATEMENTS[1]	MALES					FEMALES					TOTAL		
	E (N=42)	S (N=	P =41)	M (N=38)	C (N=56)	E (N=33)	S (N=34)	P (N=39)	M (N=19)	C (N=43)	Male (N=216)	Fem. (N=168)	Total (N=384)
1. Likes to feel useful	3.3	3.7	3.5	3.4	3.0	4.2	3.5	3.2	3.4	3.1	3.4	3.4	3.4
3. Always tries to follow the rules	3.4	2.9	3.5	3.5	3.7	2.9	3.3	3.2	2.5	3.8	3.4	3.2	3.4
5. Trusts most people to be fair	2.6	2.8	2.7	3.0	2.9	2.6	3.0	3.1	3.1	2.6	2.8	2.9	2.8
4. Feels that luck counts a lot in making it	2.1	1.7	2.0	1.9	1.6	1.9	1.8	2.4	2.3	2.4	1.9	2.2	2.0
6. Doesn't need to follow the crowd	1.9	2.0	1.4	1.6	1.8	1.9	1.9	1.7	2.1	1.4	1.8	1.7	1.8
2. Thinks a person should get what he/she can	1.7	1.8	2.0	1.7	2.1	1.4	1.5	1.5	1.7	1.7	1.9	1.6	1.7
7. Believes in helping others	3.9	3.8	4.1	3.8	3.2	3.7	4.0	3.9	3.7	3.7	3.8	3.8	3.8
9. Thinks people should admit when they're wrong	3.2	3.2	2.9	2.9	2.8	3.7	3.2	3.1	3.1	2.7	3.0	3.1	3.0
11. Believes it's up to you to "make it" or not	2.5	3.0	2.9	2.8	2.7	2.8	3.0	3.1	2.6	2.6	2.8	2.8	2.8
10. Likes friends to help decide things	2.4	1.9	2.3	2.4	2.6	1.9	2.1	2.6	2.7	2.5	2.3	2.3	2.3
12. Likes to be leader whenever he/she can	1.8	1.7	1.6	1.5	1.9	1.1	1.4	1.1	1.1	1.9	1.7	1.4	1.6
8. Believes in evening the score	1.3	1.4	1.2	1.5	1.7	1.8	1.3	1.4	1.9	1.7	1.4	1.6	1.5
18. Knows how to keep him/herself fit	3.2	3.3	3.1	3.0	3.0	3.2	2.9	3.2	3.4	3.2	3.1	3.2	3.1
17. Is pretty healthy	3.4	3.0	2.9	2.7	2.8	3.0	2.6	3.2	3.2	2.5	3.0	2.9	2.9
13. Keeps room clean	2.0	2.2	2.4	3.0	2.6	2.5	2.7	2.7	2.1	3.1	2.4	2.7	2.6
14. Takes enough showers	2.4	2.1	2.4	2.2	2.2	2.5	2.4	2.1	1.5	2.2	2.3	2.2	2.2
15. Likes to wear what is in style	2.2	2.1	2.1	2.0	2.7	1.5	1.9	1.3	2.7	2.2	2.3	1.9	2.1
16. Doesn't like to dress like everyone else	1.9	2.3	2.1	2.1	2.7	2.2	2.6	2.5	2.2	1.9	2.0	2.2	2.1
21. Takes good care of him/herself	3.7	3.5	3.4	3.2	3.2	3.4	3.2	3.4	3.2	3.3	3.4	3.3	3.4
22. Tries to look clean and tidy	3.2	3.2	2.8	3.0	2.6	3.7	3.3	3.4	3.0	2.7	2.9	3.2	3.1
20. Picks up after him/herself	2.3	3.0	2.8	2.8	3.0	2.9	3.2	3.1	3.4	3.2	2.8	3.1	2.9
23. Always seems to have plenty of energy	3.1	2.6	3.0	2.9	2.4	2.5	2.5	2.4	2.3	2.7	2.8	2.5	2.6
19. Generally looks stylish	1.3	1.4	1.9	1.5	2.0	1.3	1.5	1.4	1.7	1.5	1.6	1.5	1.6
24. Tries to look different from the crowd	1.5	1.4	1.2	1.6	1.8	1.1	1.3	1.4	1.5	1.7	1.5	1.4	1.5
26. Knows how to save money	3.1	3.4	3.1	3.2	3.4	3.4	3.5	3.4	2.8	3.5	3.3	3.4	3.0
29. Pays for his/her clothes	3.2	2.7	2.5	3.4	3.0	2.6	2.7	2.7	2.8	3.2	3.0	2.8	2.9
27. Knows that money's important, but not most important	2.6	2.3	2.4	2.2	2.3	2.5	2.4	2.6	3.0	2.4	2.4	2.6	2.5
25. Doesn't like borrowing money	2.4	2.9	2.7	2.5	2.3	2.2	2.2	2.6	2.5	2.1	2.5	2.3	2.4
30. Doesn't need advice on spending money	2.4	2.1	2.5	2.0	2.1	2.0	2.2	2.0	2.0	2.1	2.2	2.1	2.1
28. Surprised when he/she runs out of money	1.6	1.6	1.9	1.8	1.7	2.3	2.6	1.6	2.0	1.7	1.7	1.9	1.8
33. Saves to pay for things he/she wants	3.0	3.6	3.4	3.2	3.3	3.4	3.5	3.8	3.3	3.2	3.3	3.5	3.4
35. When shopping, usually chooses what to buy	3.4	3.1	3.4	3.0	3.3	3.5	3.2	3.3	3.1	3.0	3.3	3.2	3.2
36. Rather have lots of friends than lots of money	2.6	2.0	2.5	2.6	2.2	2.1	2.3	2.1	2.7	2.6	2.4	2.3	2.4
32. Likes to help handling his/her money	2.2	2.0	2.3	2.3	2.5	2.5	2.3	2.4	2.0	2.7	2.3	2.4	2.4
34. Borrows money when it is necessary	1.9	2.2	2.0	2.1	1.9	1.4	2.1	1.7	2.3	1.8	2.0	1.8	1.9
31. Sometimes buys things he/she can't afford	1.9	2.2	1.5	1.9	1.7	2.1	1.6	1.8	1.7	1.7	1.8	1.8	1.9
41. Quickly learns to do job	3.9	3.7	3.7	3.5	3.4	3.6	3.6	3.5	3.5	3.3	3.6	3.5	.5
37. Is fun to work with	3.1	3.0	3.0	2.8	2.9	3.1	3.2	3.0	2.2	3.6	3.0	3.1	.0
39. Likes more responsibility at work	2.7	2.7	2.9	2.8	2.8	2.6	2.6	2.8	2.6	2.8	2.8	2.7	2.
42. Does more than his/her share	2.6	2.6	2.4	2.9	2.6	2.2	2.4	2.7	2.8	2.5	2.6	2.5	2.6
40. Doesn't like it when there's no work	2.3	2.5	2.3	2.3	2.7	2.8	2.6	2.5	3.0	2.1	2.4	2.5	2.5
38. Will quit when he/she has enough money	.5	.5	.7	.7	.7	.7	.6	.6	.8	.7	.6	.7	.6

1. Statements are listed within subsets in order of preference by the total 384 subjects from most often chosen to least often chosen

AVERAGE PREFERENCE SCORES FOR 72 FC7 STATEMENTS FOR 5 SAMPLES OF MILDLY RETARDED ADULTS

STATEMENTS	MALES					FEMALES					TOTAL		
	E	S	P	M	C	E	S	P	M	C	Male	Fem.	Total
46. Will work hard if treated fairly	3.6	3.5	3.2	3.7	3.2	3.4	3.1	3.4	3.3	2.8	3.4	3.2	3.3
43. Usually gets work done	3.4	3.3	3.2	3.3	2.9	3.3	3.2	3.4	3.4	3.2	2.3	3.3	3.2
48. Likes to finish a job so it can be shown to others	2.2	2.2	2.5	2.2	2.5	2.3	2.7	2.3	2.0	2.8	2.4	2.5	2.4
45. When really knows what to do doesn't like being told	2.3	2.5	2.3	2.0	2.6	2.4	2.4	2.4	2.5	2.5	2.4	2.4	2.4
44. Usually doesn't mind working	2.1	2.0	1.9	2.6	2.3	2.2	2.3	2.1	2.2	2.3	2.2	2.0	2.2
47. Should not do more than he/she is paid for	1.4	1.6	1.8	1.3	1.6	1.4	1.4	1.4	1.6	1.4	1.5	1.4	1.5
54. Interested in doing job well	3.5	3.1	3.6	3.6	3.4	3.3	3.4	3.5	3.5	3.3	3.4	3.4	3.4
51. Tries hard to get ahead	2.8	2.9	2.8	2.5	2.6	2.6	2.2	2.5	2.1	2.6	2.7	2.4	2.6
53. Usually cleans up after work	2.6	2.5	2.2	2.9	2.7	2.7	2.2	2.2	2.8	2.7	2.6	2.5	2.5
50. Likes to show how much they can do	2.2	2.2	2.4	2.2	2.2	1.9	2.6	2.5	2.1	2.2	2.2	2.3	2.3
52. Feels good when job is completed, can then forget it	2.1	2.0	2.1	2.0	2.3	2.0	2.0	2.3	2.3	2.0	2.1	2.1	2.1
49. Would rather work than lie around	1.8	2.4	1.9	1.8	1.9	2.6	2.5	1.9	2.3	2.3	1.9	2.3	2.1
58. Having a steady job	4.1	3.6	3.4	3.5	34.	3.2	2.7	3.6	3.4	2.9	3.6	3.2	3.4
57. Being able to do things well	3.3	2.8	2.8	3.1	2.8	3.3	3.2	2.9	3.3	3.0	2.9	3.1	3.0
55. Having friends	2.4	2.5	3.0	2.7	2.5	2.8	2.8	2.4	2.6	2.5	2.7	2.6	2.6
59. Saving for tomorrow	2.0	2.9	2.2	2.2	2.5	2.3	2.4	2.5	1.6	2.1	2.3	2.2	2.3
60. Getting help from others	2.0	1.9	2.3	2.1	2.5	2.2	2.3	2.4	2.5	2.4	2.2	2.4	2.3
56. Having good luck	.9	1.4	1.3	1.5	1.4	1.2	1.6	1.3	1.5	2.1	1.3	1.6	1.4
63. Keeping out of trouble	3.2	3.3	2.8	2.8	3.1	2.8	3.0	3.4	3.4	3.1	3.0	3.1	3.1
65. Depending on yourself	3.1	3.2	2.8	2.9	3.0	3.3	3.1	3.0	2.7	2.6	3.0	2.9	3.0
62. Having other people like you	2.6	2.5	3.0	2.9	2.7	2.9	3.0	2.6	2.8	2.9	2.7	2.8	2.8
64. Having someone to turn to	2.6	2.4	2.6	3.0	2.3	2.9	3.0	3.0	2.9	2.5	2.6	2.8	2.7
61. Having money	2.3	2.1	2.4	2.0	2.4	2.0	2.1	1.9	1.9	2.1	2.2	2.0	2.1
66. Getting the breaks	1.2	1.5	1.5	1.4	1.6	1.1	.9	1.1	1.3	1.8	1.5	1.3	1.4
67. They worked hard	N/A	3.4	3.1	3.1	3.5	N/A	3.2	3.1	3.0	2.9	3.2	3.0	3.2
71. They easily do the right thing	N/A	2.8	2.9	3.6	2.3	N/A	2.8	3.2	3.1	2.8	2.8	2.9	2.9
69. They were helped by others	N/A	3.0	2.7	2.3	2.5	N/A	2.7	2.6	2.7	2.6	2.6	2.6	2.6
70. They knew more how to do things	N/A	2.3	2.5	2.3	2.7	N/A	2.5	2.1	2.3	2.6	2.5	2.4	2.4
72. They were liked by most people	N/A	2.1	2.3	2.3	2.1	N/A	2.1	2.5	2.4	2.3	2.2	2.3	2.2
68. They had good luck	N/A	1.4	1.5	1.4	1.9	N/A	1.8	1.7	1.6	1.9	1.6	1.8	1.7

N/A: This last set of items were not administered to the pilot sample

This procedure was carried out using "half samples" of 74 subjects randomly selected from the pooled Eugene pilot sample (n=75) and Salem-Eugene sample (n=73). Two sets of item validities (item-criterion point biserial correlations) were used, one set using counselor ratings as the criteria and the second set using the interview data indices[1] as the criteria. For each criteria, coefficients were computed separately for the male, female, and combined male-female samples. The item pools were identified, 60-70 items each for the male and female keys, Only about 20 percent item overlap was found between the male and female keys. Retained items within each pool were keyed either plus or minus one (depending on the sign of the biserial) and summed to yield FCI scores.

A problem with the foregoing procedure was the small sample size resulting from partitioning the half samples into male and female groups. The result was unstable item validity coefficients; even within an item selection criterion of repeatable validity in the two half samples, selection from the large pool of 180 items resulted in considerable "capitalization on chance." Correlation coefficients were computed for the various FCI scores developed using the different trial scoring keys and their respective criteria for subsequent Portland, Madison and Columbus generalization samples. These validity coefficients varied, ranging into the .50's and the .40's for the Portland sample, but principally in the .30's and .20's for the remaining Columbus and Madison sample The higher validity coefficients in the .60's and .70's for the Eugene-Salem sample were, of course, inflated since the item statistics used to develop the key were computed for subjects randomly selected (half samples) from those samples.

In further considering the lower validity correlations for the generalization samples, preliminary examinations made among some of the inter-correlations among criteria part scores and subtests of the FCI suggested a possibility of non-single factor structure both for the criteria and the FCI. This possibility was further explored using several FCI subtest scores rather than a single total score. The sets of items for the subtests were identified using a new keying sample of 100 subjects randomly selected from the combined Eugene-Salem sample of 148 to provide a more stable set of item-criterion biserial r's. Items were assigned either plus one, minus one, or zero item weights on the basis of these r's. These item weights were in turn used to compute six FCI subtest scores were based on a prior organization of the FCI into the General Societal, Self-Care, Managing Money, Work Orientation, Values, and Attribution of Success item groupings. These simplified item weights were adopted in place of more variable item weights on the bases of empirical comparisons which revealed no advantages for more differential item weighting systems. These subtest scores were intercorrelated with the rating criteria part scores and with those additional interview data indices used in the cross-validation analysis (noted above) to examine relationships within the

[1]These criteria, combining a present employment, a past employement and a "independence" indice will be more fully described in the following subsection.

Eugene-Salem sample and the generalizability of these relationships to the Portland, Columbus, and Madison samples.

Though generally the interrelationship among subtests and between subtests and criteria remained stable across samples, occasionally substantial changes in these relationships were obtained for different samples for a particular subtest. The Madison sample was especially troublesome in this regard suggesting uniqueness of these subjects and/or of their raters. The problem of small samples (once they were divided by sex) was, of course contributory to the varied correlations obtained. These variations led to continued lower correlations for the combined subtest (total FCI) and criteria ratings.

In an effort to find more stable item (generalizable) subtest keys, a further item selection procedure was tried using the Guttman criterial of differences in criterion means for persons responding differently (choosing A or B) to the FCI items. Guttman's procedure, though especially appropriate for multiple choice items, in the present two choice (A or B) case weights items in the same relative order as the biserial r, except for the factor of item difficulty, i.e., percent of subjects preferring A or B. Again, though the intercorrelations among FCI subtest scores based on the key developed from the Guttman item weights and the criterion-subtest correlations were generally consistent across samples, occasional pronounced exceptions unique to a single sample were found. These occasional nonconforming, within-sample r's again assured low across-sample criterion correlations of combined subtest scores (total FCI scores). The pattern of substantial cross-validity sample r's dropping to around .30 and below for Portland, Columbus, and Madison samples was just as unsatisfactory as the earlier keys. In effect, though the various FCI item keys differed in content as much as 50 percent, neither the increase of the keying sample size nor the use of the Guttman item weights improved upon the initial project keys developed from item biserials computed for half samples.

While the several aforementioned attempts to develop an across-sample FCI item key from a single area sample (in this case, the combined Eugene-Salem samples) must be counted unsuccessful, a different, multi-sample item selection procedure achieved much more satisfying results. The item selection strategy used was similar to that used in the pilot study in that it returned to the criteria of differences between response of high and low rated groups rather than to total group statistics. For all five samples, response preferences (percentage of subjects choosing A and B) for all 180 FCI items were listed for subjects rated high by their counselor and/or interviewers on the community adjustment scales and for subjects rated low. These high and low rated subject groups included 153 males, 86 high rated and 67 low rated, and 116 females, 50 high rated and 66 low rated. The number of high and low rated subjects within each sample were earlier noted in Table 6.

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[1] This item selection procedure, initially reported by Guttman (1941) has recently been successfully used by Raffeld (1975). Support by Raffeld in preparing this keying is acknowledged.

The item selection was two-stage. Items with differences of ten percent or larger were identified first as the more discriminating items (61 items for males and 64 items for females). The second item selection rule was that to be included, items must maintain this ten percent high-low difference in at least three[1] of the five samples and that items with a single reversed difference of 10 percent or greater were to be rejected. The retained items were keyed A or B consistent with preferences of the high rated subjects with the keyed response set equal to one and the non-keyed response set equal to zero.

These procedures yielded 31 male items and 43 female items constituting a male and female "generalization" key, respectively. These two keys were generally quite distinct; only six of the 31 male items were also included among the 44 female items. Preliminary analyses of the relationships of FCI scores based on these generalization keys and the combined counselor-interviewer ratings made of the subjects yielded generally moderate validity coefficients ranging from .70 for the Portland sample female key to a low of .39 for the Columbus sample male key. The median coefficients were .52 for the male sample, and .59 for the female sample. The across-sample generality of all of these latest keys are clearly a substantial improvement over the earlier FCI keying attempts.

A final modification was made of this generalization key by "refining" the high-low criterion groups used to identify the more discriminating items. This criterion refinement involved the exclusion of "questionable" subjects who either had very different ratings from different raters or who had contradictory questionnaire information. An example of a questionable subject would be one with a negative history of employment or socialization, but who had been rated high on either of these rating scales possibly because the rater (counselor) had less current or incorrect subject information or possibly because the rater (interviewer) was particularly impressed by the subjects "presence" in that interview situation. The refinement procedure in effect, questioned the assignment of such subjects into either high or low criterion groups, and "hedged" toward a more assured high and low groups by excluding them from the item selection analyses. These deletions resulted in a "refined" high rated group of 80 males and 46 females and a "refined" low rated group of 61 males and 62 females.

These refined samples were then used to select FCI items by once again identifying the most discriminating items by comparing item responses of high and low males and females following the two stage selection procedure of first identifying discriminating items for the combined sample and then excluding items with larger intersample differences. The resulting 30 "best" male items and 30 "best" female items defined the current FCI generalization keys.

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[1] Shorter male and female keys were also developed consisting of the more consistently discriminating items, those with consistent differences in all or all but one sample. These short keys, a 16 item male key and 28 item female key, offered no special improvement with respect to criterion relationships and were discontinued.

These keys are included as Appendix E to this report. Correlations between the summative FCI scores obtained from these keys and the rating and the interview based criteria for each of the five post high school samples are provided in Table 26.

TABLE 26

Correlations Between FCI Total Scores for the 30 Item Generalization Key and Averaged Counselor-Interviewer Adjustment Ratings and Supplementary Interview Based Criteria Indices for 5 Samples of Mildly Retarded Young Adults.

Males	Eugene (Pilot)		Salem Oregon		Portland Oregon		Madson Wisc.		Columbus Ohio	
Sample Size	40		35		41		34		51	
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.
FCI Total	16.8	3.6	17.[illegible]	4.4	17.9	4.7	19.0	3.9	16.3	4.9
Average Rating	14.5	7.1	13.7	5.8	13.9	7.5	15.4	5.8	13.3	5.2
	.73		.80		.69		.72		.65	
Employm. History	3.6	2.4	1.7	2.[illegible]	2.0	1.8	3.0	1.6	2.4	1.6
	.24		.53		.54		.31		.33	
Vocational Status	2.5	1.5	2.3	1.5	1.8	1.3	2.4	1.3	1.4	1.0
	.61		.51		.45		.36		.51	
Living Arrang.	2.0	2.2	1.3	1.5	0.8	1.1	1.0	1.6	1.[illegible]	1.5
	.20		.37		.19		-.23		.58	
Females										
Sample Size	31		33		37		18		41	
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.
FCI Total	15.0	4.0	17.1	4.1	17.5	4.2	17.9	3.4	15.3	4.9
Average Rating	11.8	7.3	11.6	5.9	13.5	[illegible].0	15.1	4.	13.6	5.9
	.67		.72		.64		.72		.50	
Employm. History	2.4	1.5	2.1	1.6	1.8	1.7	2.8	1.2	2.0	1.2
	.52		.50		.51		.54		.52	
Vocational Status	1.4	1.6	1.5	1.4	2.0	1.8	2.2	1.5	1.1	1.0
	.52		.55		.26		.4		.37	
Living Arrang.	2.1	1.8	1.6	1.6	1.6	1.8	1.6	1.6	[illegible].7	1.2
	.33		.34		.54		.20		.29	

As reported in Table 26, the correlations between the 30 item FCI generalization score and the average rating subjects received from their counselor and/or interviewer ranged between .65 and .80 for the "refined" male samples (median r= .72) and between .50 and .72 for the "refined" female samples (median r= .67). The further FCI score correlations with the interview based supplementary criteria indices are more moderate; median r's for the male and female samples respectively, were .33 and .52 for the Employment History Index, .51 and .43 for the present Vocational Status Index, and .20 and .33 for the Living Arrangements Index. The lower correlations for this last index are, in part, forced by the positive skewness of that index (relatively few subjects had achieved independence from parents), which may also be noted by the low L.A. means and relatively high standard deviations. The singular negative correlations for this index is principally attributable to the larger several Madison "group home" subjects who earned lower FCI scores than did living-at-home subjects. With the exception of this negative r, the Table 26 correlations are all higher than those for previous keys. Apparently, the removal of questionable subjects from the high-low item keying samples resulted in FCI scores more uniformly related to criteria in the five geographically dispersed samples.

In particular, the FCI rating coefficients represent a desirable improvement over earlier FCI keying attempts. Considering the averaged counselor/interviewer ratings as the principal project criteria of post school adjustment, these FCI-rating correlations are interpretable as FCI "validity" coefficients. These validity coefficients support the project goal in developing an objective, easily administered across-sample test of community adjustment.

2. Cummulative Preference Scores: Concurrent with the FCI item keying described in the preceding subsection, a cummulative FCI statement preference score was developed based on data from the five samples of post high school subjects. The Portland test-retest data, reported in subsection A2 (see Table 24) indicated considerable stability for individual statement preference scores. The cummulative preference score was developed in trial analyses using the same successive sampling of subjects as reported for the FCI item score. As with the FCI item selection, the more discriminating statements were identified on the basis of differences between the more successful and less successful subject groups. The initial attempt to select a subset of FCI statements from just the combined Eugene-Salem sample which would work equally well across the other three samples proved unsuccessful (as was true for selecting items) and a two stage statement selection procedure using the all five post high school samples was adopted.

Selection of statements was made separately for males and females. The discrimination criteria for initially selecting statements was a difference of at least 0.4 (significant at the .05 level of confidence) between average preference scores for the combined sample successful and unsuccessful subjects. To be retained, these differences had to maintain in at least three of the five post high school samples with no major reversals. These "high" and "low" subjects comprising the initial criterion groups were those previously described and used for

item keying, namely, 141 males (80 high rated and 61 low rated) and 108 females (46 high rated and 62 low rated). A further inclusion criterion for analysis purposes was that the statement appeared at least three times in the shortener FCI administered at the time of the fourth follow-up sample interview.

The 28 different statements which met those criteria for either (or both) males and females is presented in Table 27. Statements appearing in the left side of the table were more often chosen by low-rated (unsuccessful) subjects. The letter, M or F, appearing next to each statement number indicates whether it was principally discriminating for males (M), females (F) or both sex groups (MF). A total of 18 statements met the discrimination criteria for the male samples and 17 for the female samples. Seven statements discriminated well for both sex groups.

TABLE 27

FCI STATEMENTS DISCRIMINATING BETWEEN

HIGH RATED AND LOW RATED POST HIGH SCHOOL SUBJECTS

Chosen more often by high rated subjects.	Chosen more often by low rated subjects.
"Which is most like you?"	
1.M You like to feel useful.	8.M You believe in evening the score.
7.MF You believe in helping others	10.MF You like your friends to help you decide things.
9.M You think people should admit when they're wrong	13.M You keep your room clean.
23.M You always seem to have plenty of energy.	15.M You like to wear what's in style
25.F You don't like borrowing money.	26.F You know how to save some money.
29.F You pay for your own clothes.	28.MF You are surprised when you run out of money.
33.M You save to pay for things you want	36.F You'd rather have lots of friends than lots of money.
44.F You usually don't mind working.	42.M You do more than your share.
46.MF You'll work hard it they treat you fair	47.MF You feel you should never do more than you're paid for
53.M You usually clean up after your work.	48.F You like to finish a job so you can show it to someone.
"Which is most important for you to have a good life?"	
58.F Having a steady job.	56.M Having good luck
59.F Saving for tomorrow.	60.F Getting help from others.
65.MF Depending on yourself.	66.M Getting the breaks.
"Which is most true of people who succeeed or get ahead?"	
67.F They worked hard.	68.MF They had good luck.

Note: The letters M and/or F indicate that the statement discriminates for males (M), for females (F), or both males and females (MF).

As may be noticed in scanning Table 27, the higher rated subjects tended to more often choose statements describing themselves as more confident, altruistic (believing in helping others), self appreciative, industrious and more dependent upon themselves (for example, more rejecting of "external constraints" such as luck) than did the low rated subjects. This latter group more often choose statements reflecting a concern for "fairness" getting even, not doing more than you're paid for, appearances, and acknowledging need for support from others than did the high rated subjects. To some extent these concerns of the low-rated subjects suggest a need for protection or defense from others as contrasted with a "safer" self-identification acknowledged by a number of the left column statements. These interpretations are however limited, in that they are based on relative rather than on absolute differences. Two listings in Table 27 are of statements which were preferred more by one group than another, not statements which one group preferred and the other rejected. For example, it would be incorrect to interpret the three "luck" statements (# 56, 66, and 68) appearing in the "low" rated subject column as indicating that these subjects frequently chose these statements. Reference to the more complete Table 25 data will reveal that "luck" statements were among the least chosen by nearly all subjects. Examination of the statement preferences for high rated and low rated subjects revealed that "luck" statements were among the least chosen for both subject groups. These statements appear in the right column of Table 27 because they were significantly even less frequently chosen by the higher rated subjects. This same caution applies to interpretations of sex differences. Though only seven of the 28 statements met the inclusion criteria for both sex groups, most statements were similarly preferred as FCI alternatives by both males and females (see Table 25). Furthermore, most of the 21 statements which met the discrimination criteria for only one sex group were also discriminating in the same direction for the other sex group, but not significantly so.

The statement preference scores for the discriminating FCI statements (appearing in Table 27) were combined to form Cummulative Preference Scores by summing preference scores for statements "chosen more often by high rated subjects" and subtracting preference scores for statements "chosen more often by low rated subjects." The minimum and maximum scores possible for these composites were -50 and +40. These scores were computed for all post high school subjects and ranged from -18 to +26 or approximately the middle half of the possible score range. As discussed earlier (subsection A), the FCI was twice administered after a one-week to ten-day interval to the Portland sample. The test-retest correlations for the Cummulative Preference Scores for this sample .820 for the males and .784 for the females, compared favorably with those obtained for the 30 item FCI score. The group means also remained relatively unchanged over the retest interval (t's < 1.0). The summary data for these retest comparisons are presented in Table 28.

Table 28

TEST-RETEST CORRELATIONS BETWEEN FCI CUMMULATIVE PREFERENCE SCORES BASED ON A REPEATED FULL 180 ITEM RETEST AFTER A ONE TO TWO WEEK INTERVAL (PORTLAND SAMPLE)

	Males (N= 41)			Females (N = 39)		
	X	SD	r	X	SD	r
Test	2.54	5.8	.820	9.85	7.94	.784
Retest	2.95	6.9		10.79	8.08	

The correlations between the Cummulative Preference Scores and the ratings and the three interview based criteria were computed for each of the five post high school samples. These were the same "refined" samples used for the 30 item FCI analyses. These data are presented in Table 29.

As reported in Table 29, the correlations between the FCI Cummulative Preference Score and the average rating subjects received from their counselor and/or interviewer ranged between .50 and .64 (median r = .57) for the "refined" male samples and between .51 and .60 (median r - .57) for the "refined" female samples. These coefficients were more moderate than those reported for the 30 item FCI score. The further Cummulative Preference score correlations with the interview based supplementary criteria indices were also lower than those for the FCI scores; median r's for the male and female sample, respectively, were .28 and .40 for the Employment History Index, .25 and .31 for the Vocational Status Index and .20 and .21 for the Living Arrangements Index.

The earlier keys developed using total "nonrefined" high-low rated keying samples or keys based on correlations between the rating criteria and the individual statement preference scores for the total (middle-rated subjects included) samples had yielded generally similar correlations between the adjustment rating criterion and cummulative preference scores. Apparently the removal of questionable subjects from the "high" and "low" keying groups and consequent changes in the statements to be included in the cumulative preference score had minimal effect on the relationship of that score to the various adjustment criteria. Considering that the samples on which the Table 29 correlation coefficients were computed include those subjects used in the preference score keying, these moderate to low coefficients forecast limited generalizability (beyond the keying sample) of the Cumulative Preference Score. This generality of both the 30 item FCI score and of the Cumulative Preference Score is examined in the following subsection.

C. Validation of FCI Keys

1. Redefinition of Criteria Samples: The interviewer rating procedures administered in the two final interviews with the high school follow-up subjects had been developed to identify samples of our more successfully and less successfully adjusted subjects preparatory for the validation of the FCI keys. The dual use of our interviewers as both

TABLE 29

Correlation Between FCI Cummulative Preference Scores and Averaged Counselor-Interviewer Adjustment Ratings and Supplementary Interview Based Criteria for 5 Samples of Mildly Retarded Young Adults

MALES	Eugene (Pilot)	Salem Oregon	Portland Oregon	Madison Wisconsin	Columbus Ohio
SAMPLE SIZE	40	35	41	34	51
	$\bar{X}$ SD	$\bar{X}$ SD	$\bar{X}$ SD	$\bar{X}$ SD	$\bar{X}$ SD
FCI Cummulative Preference Score	10.6 6.9	7.1 7.1	2.5 5.8	4.1 6.0	8.2 7.2
Average Ratings	14.5 7.1 .55	13.7 5.8 .58	13.9 7.5 .64	15.4 5.8 .56	13.3 5.2 .50
Employment History	3.6 2.4 .20	1.7 2.0 .28	2.0 1.8 .25	3.0 1.6 .32	2.4 1.6 .30
Vocational Status	2.5 1.5 .21	2.3 1.5 .31	1.8 1.3 .25	2.1 1.3 .15	1.4 1.0 .26
Living Arrangements	2.0 2.2 .20	1.3 1.5 2.8	0.8 1.1 .10	1.0 1.6 .02	1.1 1.5 .28
FEMALES					
SAMPLE SIZE	31	33	37	18	41
	$\bar{X}$ SD	$\bar{X}$ SD	$\bar{X}$ SD	$\bar{X}$ SD	$\bar{X}$ SD
FCI Cummulative Preference Score	3.8 7.2	7.4 6.9	9.8 7.9	6.5 6.4	4.1 7.5
Average Ratings	11.8 7.3 .57	11.6 5.9 .60	13.5 6.0 .51	15.1 4.1 .61	13.6 5.9 .56
Employment History	2.4 1.5 .40	2.1 1.6 .31	1.8 1.7 .42	2.8 1.2 .36	2.0 1.2 .47
Vocational Status	1.4 1.6 .29	1.5 1.4 .40	2.0 1.8 2.9	2.2 1.5 .32	1.1 1.0 .31
Living Arrangements	2.1 1.8 .21	1.6 1.6 .18	1.6 1.8 .27	1.6 1.6 .19	0.7 1.2 .23

data collectors and criterion raters was forced by a lack of any other identifiable source of sufficiently knowledgeable and objective raters. Only a portion of our sample appeared to have maintained contact with counselors or vocational trainers; fewer probably had job supervisors sufficiently informed about their employee's non-work encounters and activities. Apart from the practical time-cost problem involved in enlisting any of these persons as raters, their anticipated probable variability in background, professional focus, and referencing populations further argued against their use in this capacity.

The intended total dependence on interviewer ratings for identifying the successful (high rated) and unsuccessful (low rated) high school follow-up subjects was predicated on the ability of our interviewers to summarize their subjects' post school achievements and failures into a single global evaluation. Though in terms of inter-rater and intra-rater agreement over a five to six month retest period, these global interviewer ratings appeared both satisfactorily stable (over time) and generalizable across interviewers (see section II D, Table 7) these requisite measurement considerations did not assure the validity of the rating as a comprehensive indice of adjustment to post school living. Since the interview schedule probes supplied additional data descriptive of our subjects' vocational and social successes and failures, an examination of congruences and departures of interview ratings from these more particularized but less subjective supplementary criterion data was recommended.

Additional adjustment criteria were developed directly from the interview data both for post school samples and for the high school follow-up sample to be used as supplementary codified descriptors or indices of the subjects' vocational and social achievements. The three achievement indices were derived from the single post school sample interviews. The first, Employment History, (E H), was a zero to four scale measuring the extent to which the subject was employed during his or her post school period. The second indice described the subjects' present Vocational Status (VS), using a zero to five scale with high values assigned to subjects employed in non-sheltered, skilled or semi-skilled jobs. The third achievement indice described the subject's Living Arrangements (LA), using a zero to four scale with higher values assigned to subjects who were more self-supporting and independent, i.e., living away from relatives.

Four supplementary criterion indices were developed from the more extensive data obtained from the three post school interviews of the high school follow-up subjects. The first of these was a seven point, Vocational Status indice (VS) based on the subjects' present job level similarly to that just described for the post school sample data. The second was a seven point, Job Movement indice (JM) based on the subject's last two interviews with highest values assigned subjects who indicated an increased job level (or status), a code of six to subjects maintaining the same job, a code of five to subjects shifting jobs at the same level, a code of four for partially employed, down to a code of 1 for those chronically unemployed and not looking for work. A third vocational related indice was the Vocational Realism indice (VR) based on the subjects' final interview. This five point scale assigned highest values to subjects realistically planning to achieve a vocational goal or to maintain an adequate present job and lower values to subjects wanting a job change

but having no real knowledge about job requirements or how to get training or information. The final supplementary indice was a four point scale describing the subjects' reported Use of Leisure Time (LT) at the time of his/her fourth interview. This indice was based on the subjects' report of whom he or she spends free time with and what types of activities are engaged in. Lowest ratings were assigned subjects whose leisure time use was marked primarily by time spent alone or with members of the immediate family in activities that are largely unstructured and routine. Highest ratings were assigned to subjects whose leisure time was largely spent with both family and friends and in a range of activities including structured and regular special interest activities and hobbies.

The relationship among these several supplementary criterion indices and the interviews rating were examined in terms of product moment correlations. The coefficients, computed separately for males and females, are presented in Tables 30 and 31 for the post high school samples, and for the high school follow-up samples, respectively.

With the singular exception of the correlation of .64 for the "use of leisure time" index for the female high school follow-up sample, the rating-interviewer correlations presented in Tables 30 and 31 ranged from the high .40's to the mid .20's indicating considerable independence of the two sets of data. Whereas the differences between a number of the male and female correlations for the follow-up samples indicate different relevancies of the interview based indexes for the two sex groups, (for example, the "use of leisure time" index is revealed as more totally independent of vocational achievement indices for the males than it is for the females), these sex differences are generally lacking for the post school samples.

Of more particular concern to the FCI keying and validation procedures than the group based intercorrelations among the interview ratings and the interview based supplementary criteria, are the individual occurrences of gross disagreement, i.e., extreme ratings in one direction and extreme interview-based criteria in an opposite direction. Inspection of these individual ratings and interveiw based criteria revealed that approximately a tenth of the subjects were discrepantly described on these two sets of data. In an effort to resolve these discrepencies, the complete file of all interviews were reexamined with the result that a number of problems with "face" acceptance of the interviewer ratings became apparent from interviewer-rater commentary on the interview record. Some raters apparently emphasized such factors as "appearance" of the subject, obesity, cleanliness, task attention, and condition of the home over and above their subjects' achievements in making their ratings. Special subject situations such as newly married females quitting their jobs, the very limited out-of-home social activities of "couples", the special employment restraints of some sheltered workshop situations, for example, were not alw,s taken into account in making ratings. These interviewers options regarding data relevence[1] were viewed as undesireable in defining criterion samples.

[1] In retrospect, the rating instructions were in need of further detail and examples.

Table 30

Intercorrelations Among Counselor/Interviewer Ratings and Supplementary Interview Criteria for Post High School Mildly Retarded Adults

Males (N=216)	$\bar{X}$	SD	EH	VS	LA
Ratings	13.91	6.10	.48	.48	.25
Employ. History	2.32	1.80	--	.49	.21
Vocational Status	1.95	1.34	.49	--	.32
Living Arrangements	1.28	1.62	.21	.32	--
Females (N=167)					
Ratings	12.61	6.07	.49	.38	.34
Employ. History	2.04	1.54	--	.39	.26
Vocational Status	1.60	1.26	.39	--	.26
Living Arrangements	1.41	1.78	.26	.26	--

Table 31

Intercorrelations Among Interviewer Ratings and Supplementary Interview Criteria for Follow-Up Sample of Mildly Retarded Young Adults

	Mean	SD	VS	VM	VR	LT
				Males (N=102)		
Interview Rating (IR)	13.92	5.56	.33	.32	.32	.32
Job Vocational Status (VS)	4.46	1.90	--	.84	.39	.19
Job Movement (JM)	4.65	1.73	.84	--	.30	.06
Vocational Realism (VR)	3.38	1.32	.39	.30	--	.05
Leisure Time Use (LT)	2.86	1.05	.19	.06	.05	--
				Females (N=65)		
Interview Rating (IR)	13.82	5.33	.47	.29	.35	.64
Job Vocational Status (VS)	3.75	1.91	--	.67	.28	.31
Job Movement (JM)	4.14	1.81	.67	--	.15	.20
Vocational Realism (VR)	3.26	1.33	.28	.15	--	.20
Leisure Time Use (LT)	2.62	1.07	.31	.20	.20	--

The dependence on the interviewer rating as the sole determinant for high-low criterion group placement was therefore shifted to a "total data" consideration. The exclusion of "questionable" high-low subjects from the item keying samples was reported in the prior subsection. For the follow-up sample of high school subjects to be used in the FCI validation analyses, the initial reliance on counselor and interviewer ratings to identify criteria groupings of successful and unsuccessful subjects was supported by dual trichotomization developed from a simultaneous examination of data from the subjects' four interviews. The first of these trichotimies was based on the various interview questions relating to vocational achievement, each subject identified as either clearly evidencing vocational achievement since high school, clearly evidencing non-achievement, or "inderterminate" with respect to vocational achievement. The second trichotomy was based on the various interview questions relating to social activities and "leisure time use" questions, each subject identified as either "adequate," "submarginal," or again, "indeterminate". For both trichotomies, the indeterminate classification reflected insufficient or questionable data. The relationship between these two trichotomies for the 106 males and 67 females receiving interviewer ratings is revealed in the frequencies presented in Table 32 in which the non marginal cell entries represent double classifications, i.e., the number of subjects classified by each combination of the two trichotomies.

Table 32

Classification of 106 male and 67 female Mildly Retarded Adults According to Vocational Achievement and Socialization at the Time of Their Final Interview

Males					Females				
Vocational Achievement	Socialization Low	Indet.	High		Vocat. Achieve.	Socialization Low	Indet.	High	
Low	13	6	4	23	Low	9	5	4	18
Indent.	15	22	17	54	Indent.	8	7	15	30
High	0	6	23	29	High	0	3	16	19
	28	34	44	106		17	15	35	67

As may be seen from the Table 32 entries, only about half of the males (55 percent) or females (51 percent) were identically classified by the vocational achievement and socialization trichotomies. By far the major portion of these discrepencies are due to subjects being classified "indeterminate" on one of the two trichotomies. Excluding those placed

[1] Data for 13 of these subjects is based on third interview ratings.

in the indeterminate category by either variable, only four males and four females of the 79 subjects classified high on socialization were classified low on vocational achievement; none of the 45 subjects classified low on socialization were classified high on vocational achievement.

As with the keying analyses, the FCI validation analyses required separate samples of males and females. To maximize these sample sizes, subjects high on either criterion and high or indeterminate on the second were combined into a high or successful post school adjustment sample and subjects low on either criterion and low or indeterminate on the second were combined into a low or unsuccessful post school adjustment sample. The FCI validation samples thus constituted comprised 80 males (46 high and 34 low) and 56 females (34 high and 22 low). The correlation of the interviewer ratings with the combined the vocational and social classification[1] for these retained subjects was .91 for the males and .87 for the females.

2. Cumulative FCI Item Scores:

FCI scores based on the 30 item generalization key developed for the post high school samples were computed for the follow-up subjects for both their first and final FCI administrations. The correlations of these scores with interviewer ratings and with supplementary interview criterion measures are presented in Table 33, the data for the males in the left section, those for the females, in the right section. Since the male and female item keys are based on different items with different item difficulties they are not directly comparable. The first column of correlations in each section are for FCI scores based on the earlier FCI administration, the second column for FCI scores based on the shortened FCI administered 18 months later.[2] All rating and criteria data is based on the subject's final interview.

[1] The combined classifications were sums of subject classifications equating high =3, indeterminate =2 and low =1 for totals of either 6, 5, 3, and 2. Subjects with sums equal to 4 had already been eliminated as "indeterminate."

[2] This "shortened" FCI contained 121 items for the males form and 112 items for the female form. Both forms included all items in the 30 item key.

Table 33

CORRELATIONS OF FCI SCORES[1] AND RATINGS AND INTERVIEW CRITERIA FOR FOLLOW-UP SAMPLES OF MILDLY RETARDED YOUNG ADULTS

	Males (N=80)				Females (N=56)			
			r with FCI				r with FCI	
	X	SD	I	IV	X	SD	I	IV
FCI (Admin I)	19.0	4.0	-	.52	18.3	3.1	-	.27
FCI (Admin IV)	19.2	4.3	.52	-	18.7	4.1	.27	-
Aver. Interviewer Rating	14.4	5.8	.22	.46	13.8	5.6	.39	.54
Vocational Status	4.5	2.0	.02	.19	4.0	1.9	.04	.27
Job Movement	4.7	1.7	.00	.05	4.3	1.8	.08	.07
Vocational Realism	3.5	1.3	.09	.15	3.2	1.3	.36	.10
Use of Leisure Time	2.9	1.0	.12	.28	2.7	1.1	.37	.37

[1]Based on the 30 items generalization keys.

As may be noted from the Table 33 data, coefficients for FCI scores based on the final FCI administration correlated higher than those for the first administration. This is not unexpected since the FCI keying samples were all older subjects (average age 21.6 years) who had all been out of school at least one year (average out-of-school years of 3.0). The correlations of principal interest are those with the interviewer ratings, .46 for males and .54 for females.

These coefficients represent a substantial reduction from the r's of .60's and .70 reported in Table 26 for the post high school samples. This "shrinkage", however, was to be expected since the FCI item keys were developed from post high school sample data and unavoidable capitalized on chance relationships. But apart from this "cross validation" shrinkage, the considerable differences in the subjects in the two samples have likely added to the attenuation. For example, the follow-up subjects had been out of school less long (18 months compared to an average of 3 years), were generally younger (an average of 19.8 years compared to 21.6 years), had nearly all completed high school compared to 79 percent completions for the post high school sample, and had had different high school programs and entered job markets at different times, and, to some extent, lived in different urban areas. Considering all the foregoing and the prevalent finding of only negligible cross validity support for predictor-criterion studies with populations of retarded adults (i.e., Rosen, Clark and Kivitz, 1977), the obtained coefficients of .46 and .54 must be considered promising.

The extent to which these validity coefficients would be reliably improved by developing multiple criteria (rather than this project's emphasis on the counselor or interviewer rating) or by otherwise improving the criterion measures can only be conjectual at this time. Though combinations of selected criterion indices from among those listed in Table 27 could readily and reasonably be formed, additional data would be needed to test the anticipated considerable "shrinkage" of such multivariable predictor-criterion coefficients. A preferred additional data source would be the continued follow-up of the present sample of follow-up subjects. The higher FCI rating correlations for the 18 month out-of-school data than for the FCI scores based on in-high school testing, suggests that the relationship between the keyed FCI responses and community adjustment may increase with extended post school living.

A further set of Table 33 correlations of interest are those between FCI scores based on the first and fourth administration. Though moderately high for the males ($r = .54$), the retest relationship is considerably less clear for the females ($r = .27$). Both coefficients reported in subsection A for the 18-month retest of the 50 item FCI pilot key. (These retest correlations were .74 for the males and .59 for the females.) Apparently the follow-up subjects, particularly the females, changed a substantial number of their responses to the 30 FCI items during their post high school period. The extent or specific nature of these changes, however, was not examined. The higher correlations for females between their first administration FCI score and the interviewer rating and some of the interview-based criteria is also unexplained. But other correlational data aside, the value of the 30 item FCI score administered in high school for predicting subsequent FCI scores or the post school adjustment criteria reported in this study must be considered quite limited.

3. Cummulative Preference Scores:

The 15 statement FCI preference scores based on the generalization key developed for the male and female post high school samples were computed for both their first and final FCI administrations. The correlations of these scores with interviewer ratings and with supplementary interview criterion measures are presented in Table 34. The format is similar to that of Table 33 for the FCI item scores with the criterion correlations for males appearing to the left and those for females to the right. The first column of criterion correlations are those for the first FCI administration (I), the second column for those for the fourth administration (IV). As was true of the FCI item scores, the male and female Cummulative Preference Scores are based on different sets of statements and therefore are not directly comparable. It should be further noted that since some of the male and female statements appeared less than five times on the fourth administration, the scores for the first administration have a higher maximum and minimum score and are not directly comparable with those for the fourth administration.

TABLE 34

CORRELATIONS OF FCI CUMMULATIVE PREFERENCE SCORES AND RATINGS AND INTERVIEW CRITERIA FOR FOLLOW-UP SAMPLES OF MILDLY RETARDED YOUNG ADULTS

	Males (N=80)				Females (N=56)			
			r with Pref.Score				r with Pref.Score	
	$\bar{X}$	SD	I	VI	$\bar{X}$	SD	I	IV
Preference Score (Admin I)	7.6	7.7	-	.23	4.5	6.4	-	.17
Preference Score (Admin IV)	-0.1	1.6	.23	-	1.2	1.4	.17	-
Interviewer Rating	14.4	5.8	-.10	.38	13.8	5.6	.19	.44
Vocational Status	4.5	2.0	.12	.10	4.0	1.9	.19	.12
Job Movement	4.7	1.7	.22	.04	4.3	1.8	.06	.04
Vocational Realism	3.5	1.3	-.04	.27	3.2	1.3	.02	.31
Use of Leisure Time	2.9	1.0	-.07	.22	2.7	1.1	-.08	.01

As was true for the Table 33 FCI item scores, the criterion correlations for preference scores based on the later (fourth) FCI administration were all higher than those for the first administration. Again, this is not unexpected since the selection of statements and the scoring key were based on older subjects, all of whom had been out of school at least one year. The Table 33 correlations also reveal an expected shrinkage from those in the keying sample, with most coefficients .15 to .20 correlation points lower than those for the post high school sample (Table 29). Considering that these initial coefficients indicated only moderate to low relationships, these smaller validation coefficients are not encouraging. The largest coefficients, those with the interviewer rating, are only .38 for the males and .44 for the females. Even after "adjustment" for attenuation due to the imperfect reliability of the rating criteria[1] the Cummulative Preference Scores are accounting for only about a third of the "reliable" rating criterion.

A further problem is the low correlations obtained between the first administration and fourth administration Cummulative Preference Scores. These coefficients, .23 and .17 for the males and females, respectively, represent a very considerable drop in retest stability from correlations around .80 obtained for a much briefer retest period (Table 28). However,

[1] Estimating the proportion of reliable variance of the ratings at about .70 (see earlier interrater and retest rater correlations).

this reduction for the 18 month retest Cummulative Preference Score correlations is not unlike that obtained for the 30 item FCI score (Table 33). Apparently for neither score can high school FCI test performance predict FCI scores obtained a year and a half later.

A further comment regarding the poor Table 34 validities for the cummulative preference score concern the viability of procedures using unweighted combination scores from discriminating statements, i.e., adding together those which discriminate in favor of more successful subjects and subtracting those which discriminate in favor of less successful subjects. The several FCI statements which contributed to the Cummulative Preference Scores individually had related moderately well to the various adjustment criteria; collectively, as a total score, correlations with criteria were no better than for the better discriminating statements separately. Earlier efforts to use the interrelationships among the criterion and the six FCI subtest scores (i.e., the General Societal, Self Care, Managing Money, Work Orientation, Values and Attribution of Success statement groupings) to weight subtests were discontinued due to the sample instability of the subtest score intercorrelations and the therefore inappropriateness of such weights for other than the keying sample. Heiry's factor analysis study (Heiry, 1977) which revealed complex within-subtest factor structures also mitigated the development of subtest scores. Possibly, more factor "pure" FCI subscores might be developed which separately or in linear or nonlinear combination might better relate to community adjustment indices. In advance of such further exploratory score development, this remains, at best, a possibility. The Table 34 data meanwhile, indicate only weak relationships of the present Cummulative Preference scores and the community adjustment indices used in this study.

D. FCI Changes After High School:

Changes in subjects' FCI responses after leaving high school were 1) examined for the total follow-up samples, 2) for the sub samples of students identified as either successful or nonsuccessful and 3) for the subsample of students identified by their interview responses as making more pronounced changes with respect to their employment status and/or living arrangements. All examinations compared statement preference scores obtained while the subject was still in high school with scores obtained from the fourth FCI administration, 18 months later. This first examination involved a comparison of individual subject preference score for all statements administered five times in both administrations.[1] This directly comparable data was available for 34 statements twice administered to 95 males providing 3,230 comparisons and for 32 statements twice administered to 61 females providing 1,952 comparisons. In both males and females nearly a third of the statement preference scores remained identical over the 18 month period with less than one in twelve scores changing more than 2 score points. In general, this individual preference score analysis revealed subjects to be generally alike in their overall pattern of stability, i.e., no extremely changeable or unchangeable subjects. A few statements appeared to account for more of the larger preference score

[1] As may be recalled, to reduce to length and tediousness of the three replications of the FCI, not all 180 FCI items were readministered with the result that many statements appeared as alternative less than the five times of the first test administration.

changes, (in particular, statement 11, "you believe it's up to you to make it or not" for the males and statement 44, "you don't mind work" for the females), but generally most statements were alike in contributing to stability or change.

The second and third analyses both involved subsamples of the total available males and females used in the first (above) analyses. In effect, these analyses confined examination of preference score changes to more homogeneous groupings of persons. The data for these comparisons of average preference scores for these subsamples are presented in Table 35 (and 36 for the high and low success subjects and for subjects changing their employment or living arrangements), respectively. For comparison with that first administration, statements administered three or four times were prorated; statements administered less often were considered not amenable to prorating and were deleted from the comparisons.

The asterisks between pairs of means indicate differences significant at the .05 level of confidence. It will be noted that several portions of Table 35 are missing as are a number of entire statements. Preference score means were computed only for statements appearing at least three times in the final FCI administration. The "P" superscripts indicates a a prorated rated entry.

As may be noted from the Table 35 pairings of statement preference means, changes (significant at the .05 level of confidence) occurred for about a third of the male statements and for over half of female statements. Though a number of inconsistancies are to be noticed within the data rows (i.e., changes more evident for one sex group or not the same for high rated as for low rated subjects), some generalities are indicated. In general, the follow-up subjects, more particularly the females, tended to increase their choice of self assertive or individual centered statements. Examples are statements such as #12, "you like to be the leader, #2 "a person should get what he can," #8 "you believe in evening the score, #11 "its up to you to make it or not," and #65 "depending on yourself" as important for "having a good life." At the same time the data revealed a decrease in selection of some of the altruistic or other person centered statements. Examples are statements such as #7 "you believe in helping others," and #1 "you like to feel useful," and #10 "you like your friends to help you decide things." This generality is not without some contradiction however[1], for example, the increase choice of statement #36, "you'd rather have lots of friends than lots of money," (except for the low-rated females), and in statement #60 "getting help from others," as important for having a good life.

Most of the larger changes for males centered around the sets of statements relating to work attitudes, statement #44 "you don't mind working," #49 "you'd rather work than lie around," and #53 "you usually clean-up after your work." Other work related statements were less chosen on the

[1] A difficulty in interpreting this change data is the interdependence of preference scores within any subset of six statements which were paired together since increased preference for one statement forces decreases selection of the other five. This ipsative property of the preference score data similarly limits its analysis by usual factor analysis procedures. (Heiry, 1977)

TABLE 35

Average FCI Statements Preference Scores Made by Mildly Retarded Adults Prior to Leaving High School and 18 Months Later

STATEMENTS[1]	MALE High HS (45)	MALE High 18 mo. (42)	MALE Low HS (33)	MALE Low 18 mo. (32)	FEMALE High HS (33)	FEMALE High 18 mo. (33)	FEMALE Low HS (22)	FEMALE Low 18 mo. (19)
1. Like's to feel useful	3.6*	3.3[P]	3.2	3.3[P]	3.6*	2.7	3.1*	2.5
2. Thinks a person should get what he can					1.9*	3.2	1.7	1.8
6. Doesn't need to follow the crowd	1.9	1.8	1.6	1.5	2.0*	1.6[P]	1.6*	2.2[P]
7. Believes in helping others	4.0	3.9	3.6	3.4	4.1*	3.7	4.1*	3.7
8. Believes in evening the score	1.4	1.6	1.5	1.7	1.3	1.4	1.3*	2.0
9. Thinks people should admit when they're wrong	3.4*	3.0	2.9	3.0	3.2	3.0	2.6	2.9
10. Likes friends to help decide things	1.7	1.5	2.3	2.1	2.3*	1.9	2.5*	1.9
11. Believes it's up to you to "make it" or not	3.0	3.1	2.8	2.9	2.8*	3.1	2.9*	3.4
12. Likes to be leader whenever he/she can	1.6*	2.0	1.7*	2.0	1.2*	2.0	1.6*	2.1
25. Doesn't like borrowing money					2.6	2.7	2.1	2.1
26. Knows how to save money					3.5*	2.7	3.5	3.3
27. Knows money's important but not most important					2.2*	2.7	3.0	2.9
30. Doesn't need advice on how to spend money					2.1	1.9	1.9	1.9
36. Rather have lots of friends than lots of money	2.0*	2.3[P]	1.8*	2.7[P]	1.9*	2.3	3.1*	2.2
41. Quickly learns to do job	3.7*	3.1	3.3	3.2				
42. Does more than his/her share	2.2*	1.7[P]	2.4*	1.7[P]	2.3*	1.4[P]	2.6*	1.8[P]
43. Usually gets work done	3.3*	2.9	2.3*	3.0	3.2*	2.8	3.1	3.1
44. Usually doesn't mind working	2.4*	2.7	2.3*	2.9	2.2*	3.4	1.7*	2.6
45. When knows what to do, doesn't like being told	2.3*	2.7[P]	2.0*	1.4[P]	3.0*	2.5	2.8*	2.4
46. Will work hard if treated fairly	3.6*	3.3	3.2	3.0	3.3*	2.9	3.4*	2.8
47. Should not do more than he/she is paid for	1.3	1.1[P]	1.3	1.5[P]	1.3	1.7	1.6	1.9
49. Would rather work than lie around	2.2*	2.5	2.0*	2.3[P]				
50. Likes to show how much they can do	2.1	1.9	2.2*	1.9				
53. Usually cleans up after work	2.3*	2.6	2.5*	3.0				
54. Interested in doing job well	3.4	3.4[P]	3.4*	3.1[P]				
55. Having friends	2.3	2.3	2.3	2.4	2.2	2.0	2.6	2.7
56. Having good luck	1.1	1.2	1.7	1.7	1.6*	1.2	1.6*	1.1
57. Being able to do things well	3.2*	2.8	2.8	2.9	3.3*	3.0	3.3*	2.9
58. Having a steady job	3.7	3.9	3.7	3.7	3.5	3.6	3.1	3.0
59. Saving for tomorrow	2.9	3.0	2.5	2.3	2.5*	2.0	1.9	2.1
60. Getting help from others	1.8	1.8	1.9	1.9	1.9*	2.2	2.5*	3.1
62. Having other people like you					2.2	2.0[P]	3.3*	2.8[P]
63. Keeping out of trouble	3.3	3.2	3.2	3.0	2.8	2.9	3.0*	2.6[P]
65. Depending on yourself					3.2*	3.5[P]	2.3*	2.9[P]
67. They worked hard	3.4	3.2	3.2	3.0	3.4	3.4	3.2*	2.7
68. They had good luck	1.2*	1.5	1.9	1.7	1.1	1.3	1.8	1.9
69. They had been helped by other people	2.4	2.3	1.9	2.1	2.4	2.2	2.1*	2.7
70. They knew more how to do things	2.5	2.3	2.5	2.7	2.5	2.6	2.4	2.7
71. They found it easy to do the right thing	3.1	3.1	3.1*	2.8	3.1*	3.4	2.7	2.6
72. They were liked by most people	2.4	2.6	2.5*	2.0	2.5*	2.0	2.8*	2.4

* = Significant at .05 level of confidence
P = prorated means; sample sizes are in parenthesis

final retesting (see prior footnote). Examples of such statements are #41, "you quickly learn to do your job," #43 "you'll get your work done," #42 "you do more than your share," and #46 "you will work hard if treated fair."

In most instances changes in mean preference scores were in the same direction for both males and females and for both the high rated more successful subjects and for the low rated less successful subjects. This latter general lack of differences indicates that the obtained changes are less related to the differences in subjects' composite post high school activities and accomplishments and perhaps more to general "maturational" experiences which, to a large extent, are common to many of our more successful and less successful young adults.

In looking for and discussing the "changes" in statement preference scores, the more prevelent alternate condition of consistency should not be left unnoted. Though there are a sizeable number of changes asterisked in Table 33 indicating non chance changing statement selection, more generally it must be acknowledged that much sameness prevailed over the 18 month post high school period. Statements very much or very little preferred by our subjects while still in high school, reappeared as very much or very little preferred in the final testing. This was particularly true of statements having to do with "luck" or circumstances contributing to success such as #11 "its up to you," #56 and #66 "having good luck," or "getting breaks" as important for a good life and #68 attributing other's success to luck continued to be most infrequently chosen. Similarly, statements most popular in high school such as #7 "you believe in helping others," #58 "having a steady job," #67 "they worked hard," (to succeed) and #63 "keeping out of trouble," (for the males) continued to be the most popular withstanding (or because of) an added 18 month exposure to post high school living.

This stability is again evident in the Table 36 data based on the smaller samples of subjects identified as making identifiable changes in either their employment or living arrangements. Because of the smaller sample sizes, only statement preference score means based on statements appearing their maximum five times on the final FCI administration are presented. Asterisks between pairs of means indicate differences significant at the .05 level of confidence.

TABLE 36

Average FCI Preferences Score Made Prior to Leaving High School and 18 Months Later By Subsamples of Mildly Retarded Adults Who Changed Their Vocational Status and/or Living Arrangements Since High School

	MALES						FEMALES					
	Vocat.		Vocat.		Indep.		Vocat.		Vocat.		Indep.	
	HS	18 mo.	HS	18 mo.	HS	18 mo.	HS	18 mo.	HS	18 mo.	HS	18 mo.
	(22)		(13)		(16)		(11)		(11)		(13)	
1. Likes to feel useful	2.2	1.9	1.9	1.7	1.9	1.6	2.5	2.7	2.2	3.0	3.7	3.1
6. Doesn't need to follow the crowd	3.6	3.7	3.5	3.8	3.9	3.8	4.2	3.7	4.3	3.6	4.1	3.9
7. Believes in helping others	1.3	1.2	1.3	1.3	1.3	1.1	1.4	1.6	1.4	1.9	1.3	1.1
8. Believes in evening the score												
9. Thinks people should admit when they're wrong	3.1	3.1	3.5	3.0	2.7	3.1	3.2	3.2	3.3	2.9	3.0	3.1
10. Likes friends to help decide things	2.0	1.9	1.6	2.2	1.8	2.3	2.1	1.6	1.6	2.0	2.1	2.1
11. Believes it's up to you to "make it" or not	3.1*	2.5	3.4*	2.7	3.4*	2.8	2.8	2.8	2.4*	3.2	2.6	2.8
12. Likes to be leader whenever he/she can	1.4*	2.0	1.8	1.8	1.5	1.9	1.0*	1.7	2.0	1.4	1.6	1.8
25. Doesn't like borrowing money							2.4	2.6	2.5	2.2	2.9*	2.1
26. Knows how to save money							2.8	2.8	3.2*	2.5	2.5	3.1
27. Knows money's important but not most important												
28. Surprised when he/she runs out of money							2.7	3.0	2.3	2.6	1.8*	2.5
29. Pays for his/her own clothes							2.4*	1.6	1.7	2.1	2.0	2.0
30. Doesn't need advice on how to spend money							2.5*	3.4	2.6	3.2	2.5	3.1
36. Rather have lots of friends than lots of money							1.9	1.7	2.5	1.9	2.4	2.1
41. Quickly learns to do job	3.5*	3.2	3.6	3.2	3.2	2.8	2.5	2.6	2.6	2.5	2.5	2.4
43. Usually gets work done	3.3	3.0	3.5*	2.8	3.6*	2.8						
44. Usually doesn't mind working							3.0	2.7	3.3	3.1	3.5	3.1
45. When knows what to do doesn't like being told							2.6	2.8	2.1	2.6	2.0	3.3
46. Will work hard if treated fairly	3.8*	3.2	.31	2.8	3.4	3.1	2.7	2.4	2.5	2.5	3.0	3.1
47. Should not do more than he/she is paid for							2.9	2.6	3.7*	2.7	3.3	2.9
48. Likes to finish a job so it can be shown							1.3	1.5	1.6	1.9	1.5	1.5
50. Likes to show how much they can do	2.1	2.2	2.1	1.8	2.1	1.8	1.9	1.6	1.2	1.7	1.5	1.2
53. Usually cleans up after work	2.0	2.1	2.3	2.4	2.2	2.2						
54. Interested in doing job well												
55. Having friends	2.0	2.1	2.4	2.5	2.6*	2.0	2.1	2.3	2.4	2.5	2.6	2.0
56. Having good luck	1.0	1.1	1.2	1.5	1.1*	1.8	1.7	1.6	1.6	1.1	1.6	1.6
57. Being able to do things well	3.1*	2.6	3.3	3.1	3.3	3.0	3.4	3.4	3.3*	2.4	3.6	3.4
58. Having a steady job	3.7*	4.2	3.5	3.5	3.6	3.6	3.5	3.2	3.8	3.4	3.7	3.4
59. Saving for tomorrow	2.6	2.9	2.7	2.5	2.3	2.4	2.0	2.4	2.4*	3.4	1.9	2.6
60. Getting help from others	2.1	2.2	1.9	1.9	2.1	2.3	2.2	2.2	1.4	2.0	1.5	2.0
63. Keeping out of trouble	2.8*	3.3	3.5*	2.8	3.3	3.6						
66. Getting the breaks	1.2	1.3	1.5	1.5	1.4	1.4						
67. They worked hard	4.1	3.7	3.2	2.9	3.8	3.4	3.3	3.0	3.7	3.5	3.0	2.9
68. They had good luck	1.1	1.4	1.4	1.3	1.6	1.6	1.4	1.8	.5*	1.4	1.5	1.2
69. They had been helped by other people	2.2	2.4	2.5	2.0	1.9	2.0	2.1	2.3	2.3	2.1	1.5	1.5
70. They knew more how to do things	2.7	2.5	1.5	2.0	2.4	2.4	2.0	2.4	2.0	2.6	2.7	2.7
71. They found it easy to do the right thing	2.6	2.9	2.5	3.0	2.9	2.9	2.5*	3.3	3.5	3.1	3.5	3.8
72. They were liked by most people	2.2	2.5	1.8	2.2	2.4	2.4	3.4*	2.0	3.1*	1.9	2.0	2.4

* = Significant at the .05 level of confidence; sample sizes are in parenthesis

Examination of the Table 36 data reveals much fewer significant changes than was true for Table 35. To ascribe this reduction to reduced sample sizes and the requirement of larger mean differences for significance is a weak counter to the expectation that refined samples (i.e., inclusion of only subjects reporting changes in their vocational or living arrangements status) would accentuate preference score changes related to the sample selection variables. The Table 36 data reveals few such relationships. No patterns of several statements changing differently for the succeeding as for the non-succeeding group is apparent. Significance aside, for most statements changes are in the same direction for both sexes and for both succeeding and non-succeeding groups. An example here is decreasing choice of statement #11, "its up to you to make it or not," (for all three male groups) and statement #43 "you usually get your work done," #46 "you will work hard if treated fair," and #67 "they worked hard," chosen less often on the final testing by most samples of both sexes.

More generally the mean preference score data in Table 36 for the small selected subgroups of achieving and non-achieving students reflects the change patterns described for the larger samples Table 35. The broader conclusion the several examinations of preference score change is that 1) subjects change in their selection of some but not most of their FCI statements during their 18 month post high school period; 2) that most of these changes (and lack of changes) are common for both sexes and for both the high rated (more successful) and low rated (less successful) subjects; and 3) that the data failed to support expectation of concommittance of changing FCI preference scores and changing vocational or living arrangements status.

V. RECAPITULATION, CONCLUSIONS AND RECOMMENDATIONS

The guiding project goal of the research described in this report was the development of improved measures of occupational and social functioning of mildly (educable) retarded young adults in their post school environments. The main project activities carried out under this goal were the development of a Forced Choice Self Description Inventory keyed to differentiate successful from non-successful post school mildly retarded adults and the examination of change and stability in these self descriptions over an immediate post high school period. Extensive interview data describing the young adult retardates vocational and social activities, goals, and expectations were also collected. The testing program involved nearly 400 mildly retarded young adults living in various communities in the central and western United States and another 200 special education high school students who were followed up through their first year and a half after leaving high school.

The research literature surveyed in preparing this project stressed the central importance of attitudinal and personality factors in the adjustment of the mentally retarded adult (Weaver, 1946; Sarason, 1953; Penrose, 1963; Stevens and Peck,1968; Edmonson, deJung, Leland and Leach, 1971; Haywood, 1970; Heber and Dever, 1970, Rosen, Clark and Kivitz, 1977). This consensus not withstanding, literature reviews of efforts using personality measures to predict performance of retarded adults suggest, at best, limited success at identifying predictively useful determinates of adult behavior (Windle, 1962; Stevens and Peck, 1968; Cobb, 1972; Gold, 1972; Zigler and Balla, 1977; Rosen, Clark and Kivitz, 1977; Halley and Halpern, 1972). The current measurement approach departs somewhat from prior studies in combining a forced choice self-report procedure with an empirical keying based on differences in the responses of retarded adults identified as clearly succeeding and those identified as failing. The project was initiated by a pilot study involving only local (Eugene) subjects. The present study permitted a much broader subject population and continued development of the pilot instrument.

A. Procedures: The Forced Choice Self Description Inventory (FCI) was developed as a procedure for examining the mildly retarded respondent's behavior's, attitudes, preferences, and beliefs possibly relevent to his/her functioning after high school. The guiding assumption of this development was that community adjustment was in larger part determined by the person's intrapersonal variables and that these could be measured given accurate self description responses. A paired comparisons procedure was adopted eliciting the subject's self description to avoid the skewed, non-descriminatng rating or preference responses typically obtained from instruments which require respondent consideration of only one statement at a time.

Essentially the paired comparison procedure posed two generally desireable, plausible, self descriptive statements against each other within an item. The subject task was always to chose one of the two statements as his/her preferred response.

The total FCI consisted of 72 statements grouped into six headings:

(1) General behavioral rules or guides (12 statements such as "You like to feel useful," and "You think that luck counts a lot in making it").

(2) Personal care (12 statements such as "You know how to keep yourself fit," and "You pick up after yourself").

(3) Managing money (12 statements such as "You borrow when it's necessary," and "You are generally surprised when you run out of money").

(4) Work habits and attitudes (18 statements such as "You do more than your share," and "You work hard when you need to").

(5) Values and goals (12 statements such as "Having other people like you," and "Having a steady job").

(6) Attribution of success (6 statements such as "Because they worked hard," and "Because they know how to do things").

In preparing the forced choice format these groups of statements were split into subsets of six statements each (within groups). Paired comparison items were formed by matching every statement within a subset with each of the five other statements in the subset. The 180 items thus formed were placed on 3 x 5 cards mounted on a pair of rings and shown to the subject one at a time. The general instruction in the first four item groups was to pick the statement that "you feel is most like you." For the Value items the instruction was "Pick the statement that you feel is most important for you to have a good life." For the Attribution of Success items the instruction was to "Pick the statement that you feel is most true of persons who succeed or get ahead."

The FCI keying and generalization sample referred to in this report as the Post High School Sample, consisted of five geographically dispersed samples of community resident, former special class education students. The sample included 75 pilot subjects from Eugene, Oregon (54 of whom were retested during Summer, 1974); 73 subjects from Salem, Oregon; 57 subjects from Madison, Wisconsin; 99 subjects from Columbus, Ohio; and 80 subjects from Portland, Oregon. The Portland subjects were readministered the FCI seven to ten days later to provide retest stability data. This total of 384 subjects provided a data pool of 216 males and 168 females, principally Caucasian (10 percent Black), with an average age of 21.6 years. Seventy-nine percent of this total sample had graduated from high school with nearly the same number having been in a work-study program. Sixty three percent were living at home at time of testing and 72 percent were part-time or regularly employed. Excepting the lower percentage of high school graduates and the larger proportion of sheltered workshop subjects in the Columbus sample, no special differences are notable among the five samples.

In addition to the foregoing post high school test development sample, the project developed an interstate Follow-Up Sample of mildly retarded special education students scheduled to complete their high school program in June, 1975. These students were first interviewed and tested within a few weeks of their leaving school. In accordance with the project plan; these samples were to (1) provide data regarding possible changes (over a post school transition period) in those attitudes and values measured by the FCI and (2) provide a continuing description of their vocational expectations and experiences and of their social living environments. The samples also permit an added validity generalization check on FCI scoring keys developed from the longer out-of-school test development samples described above.

The four follow-up samples combined totaled 200--120 males and 80 females. Thirty-six subjects were Eugene-Salem students, 47 were Reno, Nevada students; 46 San Jose, California students; and 71 Columbus, Ohio students. Thirty-nine of the 200 were black, almost all from Columbus, Ohio schools. The average age of the follow-up subjects was 18.2. Nearly all had participated in their high school work experience program and nearly all graduated from high school shortly after their first interview.

The initial project plan called for three follow-up interviews and testings of these students. Attrition, always a problem in follow-up studies, and particularly with young, just out-of-school, non-college-bound youth, proved encouragingly low. The first 6-month follow-up tested 171 subjects; the second, six months later, tested 164 subjects and the final testing, completed 18 months after school, tested 160 subjects with a few earlier "strays" retested. After a year and a half and four testings, the sample attrition rate was only 20 percent, with a third of the lost subjects refusing retesting and approximately two thirds having moved away. The sex and race distributions for the non-retested subjects was the same as that for the total follow-up sample. In addition to the lost non-test subjects, a subsequent examination of the interview protocals revealed six subjects with handicapping conditions (in excess of retardation) who should not have been included in the testing sample. Elimination of these six subjects reduced the usable subjects to 194.

A broad inquiry Interview Schedule was developed as an accompaniment instrument to the highly structured FCI. In addition to providing demographic and general background data regarding the subjects being tested on the FCI, the interview schedule was designed to describe, and for the follow-up high school samples, to track their post school, vocational and social living experiences. The initial interview schedule for the post high school sample contained some 50 verbatim questions or confirmation probes concerning the subjects' school experiences, work experiences, current living arrangements, family situation and recreation. The interview schedule used with the follow-up high school subjects was expanded to cover three areas: (a) vocational preparation and achievement, (formal and informal), (b) vocational knowledge and expectation (immediately anticipated or intended employments; knowledgeableness of job duties, required skills, working conditions, benefits, as well as longer range vocational intentions), and (c) social satisfactions and expectations (anticipated continuations or changes in living arrangements,

friendships, leisure time activities). The interview format also included two sets of pictorial items (dealing with anticipated activities) and an interviewer "remarks" section. The three follow-up interviews included considerable repetition of the original questions with some added inquiries to the subject's responses on prior interviews, particularly with regard to their stated expectations for the between-interview period; the interviewer was to find out if these expectations (concerning employment, recreation, living arrangements, etc.) were realized and if not, why not. The full 180 items FCI was administered to all subjects during their initial interview sessions, but was reduced to around 100 FCI items on subsequent interviews to keep the total testing time to around 90 minutes.

The identification of high (successful) and low (unsuccessful) subject groups for the FCI keying and validation analyses was to be based on ratings on community adjustment rating scales administered by the subjects' vocational counselors and or project trained interviewers. Three rating scales were prepared, the first requiring judgments of the subjects' "integration into his or her community's main stream," the second, his or her "employability" from the perspective of the requirements of potential employers, and the third, the adequacy of his or her "social adjustment" from the counselor's perspective. The rating procedures required that each rater develop a personal, three-person frame of reference prior to making his/her ratings by selecting among "all former mildly retarded adults with who he/she had recent contact a retarded person whom he/she considered most successful on all three criteria, and a retarded person moderately successful on all three criteria. These selected reference person names were then written above the ends and middle of the continuous "rating line". Judgment of ratees were then to proceed by first "matching" the person to be rated with a reference person with respect to the particular scale criterion and assigning the ratee a position on the rating line which was later converted to an eight point scale.

The long range stability of these counselor ratings was first examined by asking counselors to again rate 54 subjects whom they had rated 15 months earlier in a pilot study. In most instances, the counselors made very similar ratings of subjects on the two occasions. Though the overall mean rating increased slightly, the correlation between the two sets of ratings by the same counselor was generally high; .84 for the combined integration, employability and socialization scales and nearly as high for each separate scale. Including the 13 subjects rated by different counselors reduced the coefficient to .73. Instances of larger changes were followed up by questioning the counselors who accounted for their different ratings in terms of client change.

The same rating format was used to obtain community adjustment ratings as a basis for trichotomizing the high school follow-up sample. These ratings were to be made by interviewers immediately following their final (fourth) test session. Preparatory to this plan, 164 subjects were "trial" rated following the third test session. The second rating of these subjects following their fourth test session six months later provided both intra and inter rater stability data. The six

month retest correlations for the two fourth testing interviewers, each of whom had twice rated approximately 40 subjects, were .72 and .74. Retest correlations between ratings made of the same subject by these raters and different raters were only slightly lower, r = .66.

B. Status of Mildly Retarded Young Adults: The interview schedule data provided various descriptions of the status of the young mildly retarded young adults participating in the study. Both the longer out-of-school post high school sample and the follow-up sample (18 months after high school) were principally living at home; 68 percent of the older sample (average age 21.6 years) and 77 percent of the follow up sample (average 19.7 years). Seventeen percent of the older sample and nine percent of the follow-up high school sample were married at the time of their final interview. Approximately half of the women and a third of the men in this sample reported having "special" boy or girl friends.

In both samples, approximately half of the living-at-home subjects indicated dissatisfaction with their present living arrangements and nearly all said that they wanted to be on their own. In response to the interview question, "what would need to happen before you could be on your own?" asked of the follow-up subjects, nearly all subjects referred to "having a job and enough money." Having and managing money was considered by most subjects as a part of being independent as well as one of its prime determinates. In response to the set of paired comparison questions regarding "what is the best part about having your own place," the alternative involving "control of one's own spending" ranked equally high with increased privacy and social freedom.

In both samples the unemployment rate for the subjects' parents was about double of that for the general population; approximately 15 percent for the fathers in the work force and at least 20 percent for the mothers (excluding those who reported no occupation other than housewife). Of those reporting occupations, employed and unemployed, fewer than 20 percent of either parent reported skilled and professional activities. These employment data were generally the same at all locations for both samples.

At the time of their interview approximately a third of the 384 post high school subjects were full time employed, another six percent were part time employed, 23 percent were in sheltered workshops, and 28 percent were unemployed. Of the total sample, only 29 percent of the women and 52 percent of the men had jobs in competitive employment an average of three years after school. Over half of the men's jobs were in industry or manufacturing whereas "service" jobs were predominant for women. Over 80 percent of the jobs held by the 248 mildly retarded adults reporting employment were in the unskilled (46 percent) or semiskilled (35 percent) categories.

Considering the total sample of 384 former special education students, nearly 80 percent of whom had completed their high school training, who were typically in their early twenties and had been out of school for an average of three years, this ratio of persons employed above a minimum semiskilled level drops to only one in eight. Contrary to expectations, no relationship was found between employment rates or job skill level and the length of time that the subjects had been out or school.

The employment data was not too different for the follow-up sample with approximately a third of these subjects unemployed at each of the three six-month interviews. Considering the intervals between interviews, nearly a fourth of the follow-up subjects were employed less than 6 months total during their 18 months after high school, a fourth of these reporting never having any job. Sheltered employment accounted for 15 percent of the jobs held by males and nearer 25 percent of those held by females. Similar sex differences were noted for part time employments, 17 percent of the males holding part time jobs and 29 percent of the females.

Income information, though incomplete, was generally depressed, particularly for sheltered workshop employees on piece work wages. Excluding these least paid subjects, the average wage reported (Fall, 1977) for employed subjects was just below $2.50 an hour with a number of subjects earning nearer a dollar an hour.

Both the more continually employed subjects and those less regularly employed reported having held (on the average) two or more jobs during their post school period. Less than a third of the subjects had kept a job for as long as a year; 40 percent of the subjects had held no job as long as six months. Most of the longer retained jobs were also the lower paying, including the sheltered workshops. The predominant reason given by subjects for their job change was "being fired." Though their jobs were generally at the lowest unskilled level and poorly paid, it appears that employer dissatisfaction was more of a problem than employee dissatisfaction. When asked in their interview, few employed subjects report dissatisfactions either with their employer or their working conditions.

Whereas job retention was generally low, reemployment typically involved similar jobs. Comparisons of responses to successive interviews revealed few subjects either changing to more skill demanding jobs or expecting to. Approximately 40 percent of the subjects anticipated their next year's job at their present skill level, nearly as many expected jobs at lower skill levels as at immediately higher levels. Only one in ten subjects anticipated more substantial upward changes in their employment. Most subject expectations of their eventual, more future employments were no more optimistic than that for their more immediate jobs. Fully half of the subjects indicated having no long range job plans.

A problem cited by respondents as relating to employment (and socialization) was transportation, the ability and independence in getting around. Approximately a third of both samples reported driving themselves; another third reported being dependent upon others. Sex differences were especially pronounced here. Approximately four times as many men as women drove, and the reverse, approximately four times as many women as men reporting dependence on others for getting around. When asked about intent to get a driving license, approximately a third of those not driving apparently weren't considering getting licenses.

The interview schedule included questions concerning the subjects' use of leisure time. Four categories of leisure time use were developed. The lowest two categories were assigned subjects who were either solitary or whose social interactions were limited to passive activities with their

immediate families. Approximately half of the follow-up subjects continued to be identified in these lowest categories on all interviews, while at the same time, a polarization was evident, a 10 to 20 percent "core" of these subjects becoming more solitary. A somewhat parallel opposite shifting was taking place in the upper "use of leisure time" categories; approximately a third of the total sample becoming more active socially.

Proportionately, fewer of the post school subjects had reported at least moderate socializing and involvement in goal-oriented activities outside their families. Though this sample difference is possibly related to their being older and being out of school longer, the repeated interview data revealed no changes (other than the polarization just noted) during the 18 month follow-up period. A contributor to this lack of change may be the subjects who moved away and were "lost", but this, at best, accounts for only a small number of subjects on each successive interview. The finding that after 18 months such a substantial proportion of the follow-up sample continue to maintain marginal recreational-socializing activities affords a poor prognosis for later social adjustment. A number of subjects mentioned "personal discouragement" and "lack of money" as reasons for not pursuing recreational-social activities. A probable related factor is that in response to either direct or indirect interviewer questioning, very few of the follow-up subjects expressed dissatisfaction with their current use of free time.

The "lack of money" reason for subjects' lack of active leisure activities is supported by cross reference to their interview employment data. The more limited "use of leisure time" subjects were predominately the chronically unemployed. These subjects also rarely reported making new friendships. Since most new friends mentioned by other subjects were met in work environments and only a small number through relatives or through neighborhood and church related activities, the unemployed-low socialization subject tends to be in a self-perpetuating cycle. Income aside, the non-employed subjects are socially disadvantaged. In the context of expanding friendships, as was true in the broader contexts of increased independence and leisure time activities, the importance of having a job for most of our young, mildly retarded adults is primary. Though a subject's ability to present him or herself in the job interview situation is distinct from the kind of socialization data gathered in the subject interview, success here is entry to a possible spiral of social growth opportunities. Failure to obtain employment can precipitate a corresponding negative spiral. The community adjustment rating data bears this out in that only rarely did a subject simultaneously receive a high vocational achievement classification and a low socialization classification or vice versa.

C. Forced Choice Inventory: A number of internal analyses were made of the FCI data to examine its appropriateness as a measure of the mildly retarded respondent's attitudes, preferences, and beliefs possibly relevant to his or her functioning after high school. The first of these examined the subject's ability to respond to the basic FCI instruction, i.e., to select one of two statements as being either more like him or her or better describing his or her beliefs. During the course of administering the FCI to nearly 600 mildly retarded young adults, only 15 prospective subjects produced clearly unusable responses, either persisting in giving too rapid responses (before the questions were read),

providing very questionable patterns of responding (such as A-B-A-B-A-B---), or simply being too tired or restless to complete the long, somewhat repetitive 180 item test.

A more objective criteria for task understanding is the occurrence of a "perfect" or noncontradictory sequence of preferences within an FCI subset. In a 15 item subset of six statements, each matched with every other one, a perfect sequence would be one in which the most preferred statement was chosen five times, the next most preferred statement chosen four times, the next most preferred chosen three times, the next, two times, the next, one time, and finally none, yielding a 5,4,3,2,1,0 sequence. It should be noted that two conditions are required for perfect or near perfect patterns, the first dealing with item content and the second with subject response. The first is that the items must be scalable, that is, unidimensional. Items which cannot be ordered on some common or unifying continuum cannot except by chance, yield perfect patterns. The second is that the respondents must rationally perform the task discriminations, attending, in effect, to some common continuum, in choosing between the paired statements. In a set of six items, the probability of obtaining a "perfect" pattern by chance is 2^{10} or roughly once in 1,000 times. Since the total FCI consisted of 12 item subsets involving six statements, the probability of one or more "perfect" patterns by chance in a complete administration of the FCI is .012, or approximately once in a hundred.

Examination of the number of "perfect" response patterns produced by the 384 post high school subjects revealed "perfect" patterns occuring a fourth to a fifth of the time, 323 of all subjects having at least one perfect patterns. Neither sample nor sex differences were noted nor were fatigue factors apparent (there were nearly as many perfect patterns for the later three administered FCI subtests as for the subtests administered earlier). Further inspection of the data revealed that most of the nonperfect patterns deviated from "perfect" by only one reversal. Together, these findings clearly support the conclusion that the task requirements of the very lengthy, 180 item FCI were not beyond the response capabilities of the mildly retarded young adults tested in the study. On all subsections of the test, these subjects were producing "perfect" and "near perfect" patterns far in excess of chance occurence, indicating that they were rationally managing the paired comparison task, i.e., they were choosing alternative statements within subsets of 15 items consistent with some underlying criterion of hierarchial preference for these items.

The short term reliability of the FCI was examined in terms of FCI retest data obtained from 80 Portland post high school subjects who were retested within a week to ten days after their initial test. The testing was completed by two examiners; each examiner testing half of the subjects, half of whom she had tested the first week. Whereas an item by item, subject by subject count made of the numbers of male and female subjects choosing a different response on their retest, revealed fairly frequent changes, the percentages of subjects choosing each alternative remained very stable; correlations between item "difficulties" were around .90 for all FCI subtests. The male and female means for the 30 item FCI scores (which were later developed for the total post high school sample) remained very nearly the same for the initial and second administration data. The correlation coefficients computed for the test-retest 30 items FCI scores for the male, .85 for the females or .84 for the total Portland sample indicated satisfactory retest reliability for this FCI score.

The stability of FCI statement preference scores was also examined for this retest data. Preference scores are the number of times each of the FCI statements was chosen (each statement appearing as an alternative in five different items). Changes in these preference scores were relatively minor for the retest interval. Over a third of the nearly 6000 pairs (80 subjects and 72 statements each) contained identical scores; those with changes only rarely changed more than two. The test/retest correlation coefficients computed for the FCI Cummulative Preference scores developed for the total post high school sample were .820 for the males and .784 for the females, indicating satisfactory retest stability for the FCI preference score.

An examination was also made of longer range FCI retest stability by comparing the responses of the 53 subjects from the Eugene pilot sample who were retested by different interviewers a year and a half after their initial testing. Though counts made of the number of item response changes revealed that nearly a third of the FCI items were responded to differently after the 18 month retest interval, the retest correlation coefficients for FCI scores were .74 for the males and .59 for the females. Considering the long 18 month retest interval and the possibly related changes in a number of the subject's vocational and social living activities during their retest period (and possible maturational changes, etc.) these retest coefficients are not particularly low. Apparently, even though on the individual item level many responses were changed, their cumulative effect on the subjects's relative position in his or her group on the basis of the summative FCI score is more minor. Generally, even after 18 months, most subjects, particularly males, who had selected more of the keyed responses on the FCI, again selected more of the keyed responses, and subjects earlier selecting fewer keyed responses similarly continued to do so.

The question of generality of FCI responses across the five different post high school samples tested was examined in terms of comparisons of the average statement preference scores made by males and females in those five samples. These comparisons revealed only negligible intersample differences, the order of preference for statements within a subset by the male and female subjects remaining very similar both across sexes and across samples. This intersample agreement in selection of FCI statements, together with the prior reported retest correlations and the "perfect pattern" analysis, supports the appropriateness of the FCI format and content for administration to mildly retarded populations.

The test development design called for the identification of the more discriminating items, that is, items responded to differently by "successful" and non-successful subjects, and then a keying of these items according to which alternative, A or B, was chosen by the more successful subjects. A critical step in these procedures was the identification of the successful and unsuccessful subject groups.

These identifications were made by the subject's vocational counselor and/or a project trained interviewer using the community adjustment rating scale developed for this study. The final keying samples consisted of a high rated "successful" group of 126 high rated subjects (80 males and 46 females) and a low rated, "unsuccessful" group of 123 high rated subjects (61 males and 62 females). Because of differences in their FCI responses, separate FCI keys were developed for males and females.

The item selection and keying procedure involved listing the FCI item response preference (percents of subjects chosing A or B) for all 180 FCI items for high rated subjects and for low rated subjects separately by sex and by geographic sample. From this listing items with the largest high-low rated subject differences in response preferences were identified and keyed by crediting responses chosen more often by the high rated subjects plus one and responses chosen more often by low rated subjects, zero. Because initial FCI item scores developed for specific geographic samples failed to generalize to other geographic samples, a further item selection criterion was developed which required that the high-low item response preferences obtain for the total sample of all high rated and low rated males or females and for at least 3 of the 5 geographic samples. This procedure resulted in a 30 item male and a 30 item female "FCI" generalization key. Correlations between the summative FCI scores based on these keys and the community adjustment ratings for all subjects (including those deleted from the keying sample) ranged between .65 and .80 for the five geographic male samples (median r = .72) and between .50 and .72 for five females samples (median r = .67). The further FCI score correlations with the interview based supplementary criteria indices were more moderate; median r's for the male and female sample, respectively, were .33 and .52 for an Employment History Index, .51 and .43 for a present Vocational Status Index, and .20 and .33 for an Independent Living Arrangements Index. The lower correlations for this last index are, in part, forced by the positive skewness of that index in that relatively few subjects had achieved independence from parents.

In particular, the FCI rating correlations suggest a substantive relationship between the FCI and the rater's more global judgement of the subject's community adjustment. Considering these ratings as the principal project criteria of post school adjustment, these FCI-rating correlations are interpretable as FCI "validity" coefficients. These validity coefficients support the project goal in developing an objective, easily administered, across-sample test of community adjustment.

Some reduction of these validity coefficients for other samples, however, is to be expected in that these initial FCI - rating correlations were based on samples which included the keying subjects. FCI data from the Follow-Up sample of high school students provided an estimate of this shrinkage. FCI scores based on the 30 item generalization key were computed for 80 male and 56 female follow-up subjects for both their first

and final FCI administrations[1] and correlated with the subject's interviewer ratings and with supplementary interview criterion measures. These supplementary criteria included a present Vocational Status index, a Job Movement index summarizing changes in the subject's job or job level during the successive interviews, a Vocational Realism index related to the subject's employment goals, and a Use of Leisure Time index based on the extent of socialization and kind of activities engaged in during the subject's free time. Correlations of these criteria with FCI scores based on test administrations 18 months after subjects had left high school were (for the males and females, respectively) .46 and .54 for the interviewer ratings, .19 and .27 for the Vocational Status index, .28 and .37 for the use of Leisure Time index, and near zero for the remaining indices. The approximate .50 correlations with interviewer ratings, through representing substantial shrinkage from the initial (inflated) coefficients obtained for the keying sample are still sufficiently high and confirm the relationship between the FCI and post high school adjustments (as viewed by the rater). Estimating the proportion of "reliable" variance of the rating criteria at about .70 (based on interrater and retest correlations, see section II), the obtained coefficients are accounting for around half of the reliable criterion variance.

The correlations of the FCI scores based on the earlier (while in high school) test administrations and the post school adjustment ratings and the interview-based criteria, were typically lower, particularly for the males, indicating minor relationship, at best, of the high school administered FCI scores and later obtained adjustment criterion. Correlations computed between FCI scores based on the early and final test administrations were .52 for the males and .27 for the females, indicating only limited individual predictability (particularly for the females) of post high school FCI scores from the high school FCI responses.

Concurrent with the FCI item keying just described, a cummulative FCI statement preference score was also developed based on data from the five samples of post high school subjects. As with the FCI item selection, the more discriminating statements were identified on the basis of differences between the more successful (high rated) and less successful (low rated) subject groups in the several geographic samples. These identifications were made separately for males and females. A total of 18 statements met the discrimination criteria for the male samples and 17 for the female samples, 7 of these statements discriminating equally for both sex groups.

The statement preference scores for the discriminating FCI statements were combined to form Cummulative Preference Scores and the adjustment ratings and the three interview based criteria were computed for each of the five post high school samples. The correlations between the Cummulative Preference Scores and the ratings ranged between .50 and .64 (median r = .56) for the several male samples and between .51 and .60 (median r = .57) for the several female samples. These coefficients are more moderate than those

[1] An additional 26 males and 11 females also tested at this time were deleted from this validation analysis for reasons of inconsistent or incomplete rating and or interview data (see section IV,).

reported for the 30 item FCI score. The further Cummulative Preference score correlations with the interview based supplementary criteria indices were also lower than those for the FCI scores; median r's for the male and female sample, respectively, were .28 and .40 for the Employment History index, .25 and .31 for the Vocational Status index and .20 and .21 for the Living Arrangements index. Considering that the samples on which these correlations coefficients were computed include those subjects used in the preference score keying, these moderate to low coefficients forecast limited generalizability beyond the keying sample. This lack of generality was borne out by the correlations of ratings and interview based criteria with Cummulative Preference scores computed for the male and female samples of high school follow-up subjects. The correlation between the Cummulative Preference score based on the 18 month post high school FCI and interview ratings reduced to .38 and .44 for the male and female sample, respectively. For the first administration Cummulative Preference score, the correlations were near zero as were most Cummulative Preference score correlations with the interview criteria.

The correlations between the first and fourth administration Preference scores were only .23 for the males and .17 for the females, clearly indicating a lack of individual predictability of post high school FCI Cummulative Preference scores from those based on high school FCI administrations. More generally, the follow-up sample data indicate only weak relationships between the FCI Cummulative Preference scores and the community adjustment indices used in this study.

Independent of the foregoing FCI analyses involving cummulative item and preference scores, several examinations were made of the changes in the mildly retarded young adults' FCI responses and concommittant changes in his or her employment status and/or living arrangements during the 18 months post high school period. The first examination involved extensive comparisons of first and fourth administration individual statement preference scores. Somewhat contrary to the correlational data (just reported) indicating poor test-retest stability for the FCI Cummulative Preference scores, the individual statement preference scores analyses revealed considerable repeatibility, nearly a third of these statement scores remaining identical over the 18 month period, less than one in twelve of the individual statement scores changing as much as two score points.

The other FCI-change examinations involved subsamples of high and low rated subjects and of smaller cohorts of subjects who had clearly changed their vocational or living arrangement patterns during the year and a half post school period. For both examinations, the analyses consisted of comparisons of mean preference scores made by the same subjects over the 18 month period. Changes (significant at the .05 level of confidence) occurred for about a third of the male statements and for over half of the female statements. Some of the generalities to be drawn from the data are that the follow-up subjects, particularly the females, tended to increase their choice of self assertive or individual centered statements while decreasing their selection of some of the altruistic or other-person centered statements. Most of the larger changes for males centered around the sets of statements relating to work attitudes. It should be noted, however, that some of these changes are internally relative, i.e., the paired comparison procedure requires that if one statement is chosen more often, other statements are chosen less often.

In most instances changes in mean preference scores were in the same direction for both males and females and for both the high rated (more successful) subjects and for the low rated (less successful) subjects. This latter general lack of differences indicates that the obtained changes are less related to the differences in subjects' composite of post high school activities and accomplishments and perhaps more to general "maturational" experiences which, to a large extent, are common to many of our more successful and less successful young adults.

Examination of the preference score data for the smaller samples of subjects identified as making identifiable changes in either their employment or living arrangements, on the other hand, revealed even fewer significant changes. To ascribe this reduction to reduced sample sizes and the requirement of larger mean differences for significance is a weak counter to the expectation that refined samples (i.e., inclusion of only subjects reporting changes in their vocational or living arrangements status) would accentuate preference score changes related to the sample selection variables. Few such relationships were found. No patterns of several statements changing differently for the succeeding as for the non-succeeding group is apparent. Significance aside, for most statements, changes are in the same direction for both sexes and for both succeeding and non-succeeding groups and failed to support expectation of concommittance of changing FCI preference scores and changing vocational or living arrangement status.

D. Conclusions: The research described in this report was initiated as a test development research project focussing on the measurement of community adjustment of mildly retarded young adults. The major project task was the development, keying and validation of a paired comparison Forced Choice Self Report Inventory (FCI) for administration to this population. Subordinate tasks included 1) development of a community adjustment rating scale for vocational counselor and/or interviewer use, and 2) the interviewing of an multistate post school sample of mildly retarded young adults living in their communities and of follow-up samples of educable retarded high school students preparing to leave school. These interviews, repeated at six month intervals and covering an 18 month post high school period, provided descriptions of the vocational experiences and expectations and of the social living environments of the mildly retarded persons during their first 18 months after high school.

The broad based imperative guiding project conceptualization and execution was that it extend improved knowledge and understandings of the adjustments of mildly retarded young adults in our society. The development of more effective societal responses (such as training, counseling, etc.) for preparing retarded persons for maximal careers as adults requires this and can only succeed in proportion to our understanding of the problem.

The preceding portions of this section have summarized project activities and reported the results of analyses of project-generated data. The remainder of this section presents some general conclusions regarding the project measurement task and the status of young, mildly retarded adults followed by recommendations drawn from the project findings.

1. The ability of mildly mentally retarded person to comprehend and follow the FCI task instructions was established. Two FCI scoring procedures were developed, the first based on responses to selected FCI items, the second based on preferences for FCI statements. Scoring keys for both procedures were developed empirically, using five geographically dispersed samples of clearly successful and clearly less successful mildly retarded young persons out of school an average of three years. Separate scoring keys were developed for males and females. One to two week retest correlations for these scores ranged from .78 to the mid .80's. The correlations of the cummulative item scores for the five post high school samples (based on 30 most discriminating items) with counselor/interviewer community adjustment ratings used as the principle criteria were around .70 for both sex groups. Similar validity coefficients for the cummulative preference score were generally lower with a median r of .56. The cross validation of these keys using similar criteria for the follow-up samples of former special class (educably retarded) high school students yielded correlations around .50 for the item scores and around .40 for the preference scores. Considerably lower criterion correlations were obtained for both FCI keys based on earlier, before-leaving-high school, FCI administrations. The median correlations between the in-high school and 18 month later FCI scores were .39 for the item keys and only .20 for the preference score keys. These "retest" correlations indicate very limited individual predictability of post high school FCI scores from the high school FCI responses.

Of the two FCI scoring procedures, the item score is consistently superior in terms of relationships with the rating criterion. This same advantage held for correlations with supplementary interview based indices of community adjustment. The less promising validity data for the cummulative preference score was unexpected since earlier examination of individual statement preference scores had revealed both considerable score stability and promising relationships with the rating criteria. Considerations of this cummulative score suggest problems in its dependence on too few (17-18) individual statement scores, (each score offering a contribution of from +5 to -5) and in the factorially complex relationships among these statement scores.

On the other hand, the higher across-sample generality of the FCI item score validity coefficients, the more moderate cross validation shrinkage of these item scores and their more substantive correlations with supplementary criteria, together support the FCI item score as more broadly related to the vocational achievements and socialization of post high school mildly retarded adults. More generally, these "validity" coefficients support the project goal of developing an objective, easily administered across-sample test of community adjustment. Estimating the proportion of "reliable" variance of the ratings at about .70, the obtained .50 validity coefficients are accounting for around half of the reliable

criterion variance. The FCI item score relationships with the supplementary interview data suggest that improved multiple criterion validity coefficients are clearly possible. However, these are not recommended without further cross validation in view of the considerable "shrinkage" inherent in such combinational procedures.

2. But beyond the immediate strengths and weaknesses of the particular FCI score developed by the project, or for that matter, the content of the total FCI, a conclusion to be drawn from the project effort is that the measurement procedures used have demonstrated workability for the subject population. More particularly, the various FCI analyses of involving perfect response patterns and stability of individual preference scores, establish that the task of choosing one of two self description statements presented in a paired comparison format is clearly manageable by mildly retarded adults and can be used with these persons to obtain direct, reliable and relevant data regarding these persons' behaviors, attitudes, values and beliefs. Expansions into content more immediately relevant to "self concent", "role perception", "aspiration", even to "moral judgments", would not be too removed from the present FCI's focus on personal areas such as "values for good life" and "attribution of others' success." Traditionally, "personality" related variables requiring self report and judgment have been difficult to directly (or indirectly) measure, particularly in lower ability populations. Reliability has typically been low; validity findings have been equivocal. The paired comparison procedures used in the current study demonstrates that the difficulty is limited more to the preparation of appropriate (relevant) and understandable content statements than to the subject's response liriitations or task capabilities.

3. Earlier sections of the report have described the post high school experiences and current status of mildly retarded persons in terms of their reported vocational and social activities and their expectations for the future. The contrasts between our most successful young persons and our least successful are probably as large as that of most young, non-retarded, non-college bound, post high school populations. As many as a third of our subjects were achieving vocational and social successes. Typically, these subjects had full time competitive employments; were no longer living with their parents, and reported reasonably active leisure time involvements with outside-of-family persons; a third of them were married. And then there was a middle third who were marginal or erratic in their successes; they were more typically unemployed, nearly all living at home, dependent on their families and had limited leisure time activities. And finally, there was a lower third who were doing very poorly. Some of these failures "appeared to be exploited vocationally (earning far below subsistance in nontraining, no-future jobs); most others were chronically unemployed. Most of this third group were living in exremely restrictive social environments.

Many of the "middle third subjects", but particularly those in the lower third, appeared to have little promise for positive change. In fact, the successive interview data for these latter subjects suggests reduced promise; dependent, marginally socializing persons becoming more dependent, more solitary.

Apart from these extensive within-sample differences, the interview data was especially unequivocal in revealing the pervasive importance of employment. Not only did "having a job" provide the necessary money for gaining independence from parental management and control, for spending on leisure activities, for providing transportation, but having a job also provided a socialization setting; for most employed subjects it was their major, if not the only, source of making new acquaintances and friends, for meeting people. Just as employment affords entry to a possible spiral of social growth opportunities, failure to obtain employment precipitates a corresponding negative spiral. The community adjustment rating data bears this out in that only rarely did a subject simultaneously receive a high vocational achievement classification and a low socialization classification, or vice versa.

4. Another distinctive generality to be drawn from the interview data is the importance of the family's role in fostering personal responsibility, initiative and independence in the retarded family member. This importance continued to surface through our S's recount and explanation of his post school experiences even though no direct questions enquiries regarding other person's influences were asked in the interview.[1] Those subjects who were succeeding, vocationally, socially, or both, more often seemed to have families who take an active interest in encouraging independent development, and who reinforce achievements in these areas. There seems to be a willingness in such a family to encourage the retarded member to make many of his own decisions regarding looking for work, spending money, obtaining training, and making friends. Reasonable limits regarding use of shared space, family responsibilities, hours, and activities seem to be clearly established by both the retarded member and the rest of the family. Nor do these families appear to pressure a retarded member to do more than he is capable of doing with a chance of succeeding.

In contrast, subjects who are not succeeding seemed to have a less favorable family environment. One rather common feature is the tendency to discourage the retarded member from making decisions about his own activities, spending, and employment, accompanied by very restrictive limits regarding outside activities and friendships. Another type of problem seems to involve a kind of indifference toward the retarded member's lack of achievement. Possibly, the family does not know what to do about the situation. A type of apathy seems to prevail and a certain stagnation of the retarded member's life is apparent in varying degrees.

Another difference between our succeeding and non-succeeding subjects reflects differences in their personal approach to employment and to getting along with other persons. Our succeeding individuals tend not to rely on agencies such as High School Work Placement or Vocational Rehabilitation. Rather, they take considerable personal initiative in finding training or employment opportunities. They seem to have a greater reservoir of self-confidence, to be more willing to risk being rebuffed.

It is apparent that both school and family have played a role in the development and maintenance of such personal initiative and responsibility as is demonstrated by our succeeding individuals. When schooling ends for the retarded individual, the family must be prepared to continue reinforcing adaptive patterns of responsibility, independence and initiative. Many families appear to be woefully ill-prepared to do so, and in fact, explicitly or implicitly seem to encourage the development and maintenance of maladaptive patterns of social and community adjustment.

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[1] References to the supporting and nonsupporting behaviors of their parents were voluntary, that is, it was not asked what did your parents do or say, but why did you do or not do thus and such. The general descriptions of "family role" offered here are based both on direct and indirect subject references to their family and/or interviewer observation where a family member was present.

Many families are ill prepared to acquaint their retarded member with vocational and social opportunities available after high school. It seems apparent that the end of high school for these persons does not consist of an open door into either social or vocational independence. An environment which fosters optimum adjustment needs to continue after this period.

5. On a more general note, the criterion problem remains a limitation to both predictive and concurrent validity studies. Community adjustment is an umbrella for a host of behaviors variously weighted by different arbiters for different subject populations in different environments. Continued efforts to coalese this host into a unitary index, while serving the reductionist needs of the researcher or of the field worker who is required to account his/her clients (cases) as successes or failures should be recognized for their purposes and for their nonveridicality with the "real" world. The aurora of parsimony should not enforce the needs of particular interest groups upon colleagues with a broader responsibility toward their clients' welfare. Reverence for the particular (for the parts which resist addition to the whole) is as needed for describing and understanding the development and maintenance of community adjustment behaviors as it is for designing client-responsive rehabilitation programs.

E. Recommendations: Field workers and researchers concerned with the mildly retarded adult are in agreement regarding the critical importance of social and personality variables for the post school community adjustments of this population. A major problem limiting research and remedial response and treatment development and evaluation has been the intractibility of these variables, particularly in regard to their measurement.

The self-report FCI measurement procedures examined in this project support a more optimistic conclusion regarding this problem. Granting the importance of social-personality variables for community adjustment, it is recommended that the FCI procedures be extended to measurement of specific personality constructs believed to be directly related to adjustment variables, particularly to those variables believed responsive to treatment. These beliefs (assumptions) need direct testing and verification.[1] The demonstrated ability of mildly retarded adults to respond to the FCI instructions suggests the potential usefulness of this measuring procedure for this testing and verification.

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[1] Though the FCI item scores (and to a lesser extent, the statement preference scores) developed in this project have demonstrated retest reliability, inter-sample generality and cross-sample validity, the omnibus content of the FCI precludes the identifying of more specific relationships between criterion measures and particular variables of theoretic or practical interest.

Though FCI item and statement keys based on differences between FCI responses made by high and low criterion groups were satisfactorily developed, the interview (and FCI) data revealed a larger number of experiences, attitudes, beliefs and expectations shared by both the clearly successful and the clearly unsuccessful young persons in our study. More generally, the project data suggest limited self determination of community adjustment; few if any of our subjects achieve success or fail on their own. Our subjects almost universally rejected "circumstance" or "luck" as the "Giver" of their success or failure. Neither did they attribute their achievements or failures to other persons; only rarely did they refer to possible benefactors (in Edgerton's sense; 1967) or to malefactors. At the same time the interview data suggested the importance of the family's role in fostering personal responsibility, initiative and independence for our succeeding subjects and the reverse, discouraging these same personal attributes for our non-succeeding subjects.

Our own interpretation is that a system of support and/or nonsupport activities, encouragements, directions, and denials maintained by family or other central person groups, is operating to guide, reinforce, restrain or limit the mildly retarded young person's post school behaviors and goals. This "support" system is so much an accepted part of our subject's environment and is so pervasive to his/her living that it may hardly be recognized by him/her. This interpretation, though derived from interview data, is surmize and requires confirmation or denial. Should it be confirmed, the support system (family) would properly become a focus for improving our subject's prospects for successful community adjustment.

REFERENCES

Barker, R.G. Ecological Psychology: Concepts and Methods for studying the Environment of Human Behavior. Stanford, CA., Stanford University Press, 1968

Begab, J. and Richardson, A. (Eds.) The mentally retarded and society: A social science perspective. Baltimore: University Park Press, 1975

Bolton, B. Handbook of Measurement and Evaluation Rehabilitation, University Park Press. Baltimore, 1976

Brolin, D. "Preparation of the handicapped careers." In Proceedings of the Conference on Research Needs Related to Career Education for the Handicapped, U.S. Office of Education. 1975

Brummer, E.R., "The Effects of a Paid Work Experience Upon the Measured Vocational Needs and Interests of Mentally Retarded Adolescents." Unpublished Doctoral Dissertation, State University of New York at Buffalo, 1973

Butler, E.W., Lei, Tzuen-jen, and McAllister, R.J., "Childhood Impairments and Subsequent Social Adjustment." Mimeo paper, University of California, Riverside, 1976

Cobb, H.V. The Forecast of Fulfillment. Columbia University, 1972

deJung, J.E., and Crosson, J.E., Peer Knowledge and Subsequent Adjustments of Mentally Retarded Youth, Final Report, VRA Project No. RD-2294-p. University of Oregon, 1968

deJung, J.E., Holen, M.C. and Edmonson, B., "Test of Social Inference for the Retarded Adolescents: Measuring Social Cue Perception. Psychological Reports, 32: 1973

Dawis, R.V., Lofquist, L.H., and Weiss, D.H., A Theory of Work Adjustment: A Revision, Minnesota Studies in Vocational Rehabilitation, No. XXIII, Industrial Relations Center, University of Minnesota, Minneapolis, 1968

Edgerton, R.B., and Bercovici, Sylvia. "The cloak of competence: Years later." American Journal of Mental Deficiency, 80: 1976

Edmonson, Barbara. Measure of social participation of retarded adults. American Journal of Mental Deficiency. 78: 1974

Edmonson, B., deJung, J.E., Leland, H. and Leach, E.M., Social Inference Training of Retarded Adolescents and the Test of Social Inference, Final Report. VRA Project RE-1388-P. University of Oregon, 1971

Foss G., Bostwick D., and Harris, J., Problems of Mentally Retarded Adults and Obstacles to their Rehabilitation: A Study of Consumers and Service Providers Center Paper #112 Rehabilitation Reserach and Training Center, University of Oregon, 1978

Gay, E.G., Weiss, D.J., Hendel, D.D., Dawis, R.V., and Loftquist, L.H., Manual For the Minnesota Importance Questionnaire, Minnesota Studies in Vocational Rehabilitation Monograph. No. XXVIII Industrial Relations Center, University of Minnesota Minneapolis, 1971

Gold, M.W., Stimulus Factors in Skill Training of the Retarded On a Complex Assembly Task: Acquisition, Transfer, and Retention. American Journal of Mental Deficiency 1972

Goldstein, H. "Social and occupational adustment" In H. Stevens and R. Heber (Eds.) Mental Retardation: A review of research. Chicago: University of Chicago Press, 1964

Guttman, L., "The Quantification of a Class of Attributes: A Theory and Method of Scale Construction." In Paul Horst, The Predication of Personal Adjustment. New York: Social Science Research Council, 1941

Halley, G. and Halpern, A. The identification and measurement of outcome variables that contribute to adults retardate adjustment. Progress Report, 19 Project R 12, Rehabilitation and Training Center in Mental Retardation, University of Oregon, 1972

Halpern, A.S., Browning, P.L., and Brummer, E.R., "Vocational Adjustment of the Mentally Retarded" in Begab and Richardson; The Mentally Retarded and Society: A Social Science Perspective. Baltimore: University Park Press, 1975

Hammerback, M.D., "An investigation of the Community Adaption Schedule with Educable Mentally Retarded Adolescents and Young Adults" Unpublished Doctoral Dissertation, University of Oregon, 1969

Haywood, H.C., Social-Cultural Aspects of Mental Retardation., New York Appleton-Century and Crofts, 1970

Heber, R.F. and Dever R.R., Research on the education of Rehabilitation of the mentally retarded in Haywood H.C. (Eds.) Social-Cultural Aspects of Mental Retardation. New York: Appleton, Century and Crofts, 1970

Heider, F., The Psychology of Interpersonal Relations, New York: Wiley, 1958

Heiry, T., "The Factor Structure Of The Forced Choice Inventory, An Ipsative Measure Of The Community Adjustment Of Educable Retarded Young Adults"; Master Thesis, Universtiy of Oregon, 1977.

Lambert, N.M., and Nicholl, R.C. "Dimensions of Adaptive Behavior of Retarded and Non-Retarded Public-School Children;" American Journal of Mental Deficiency, 81: 1976

Lambert, N.M., Windmiller, M.D., Cole, L.J., and Figueroa, R.A., Standardization of a Public School Version of the AAMD Adaptive Behavior Scale Mental Retardation, 13: 1975

Lofquist, L.H., and Dawis, R.V., Adjustment to Work: A Psychological View of Man's Problems in a Work-Oriented Society. Appleton-Century-Crofts, New York, 1969

Lofquist, L.H., and Dawis, R.V., Assessing the Work Personalities of Mentally Retarded Adults. University of Minnesota, Final Report: project RD-2568, 1970

McCarver, R., and Craig, E. Placement of the retarded in the community: Prognosis and outcome, In N.R. Ellis (ed.), International review of research in mental retardation (Vol. 7) New York: Academic Press, 1974

Nihira, K. Factorial dimensions of adaptive behavior in adult retardates. American Journal of Mental Deficiency, 73: 1969

Nihira, K., Foster, R., Shellhaas, M., and Leland, H. Adaptive behavior scales manual. Washington, D.C.: American Association on Mental Deficiency, 1970

Penrose, L.S., The Biology of Mental Defect. London: Sidquick and Jackson, 1949

Raffeld, P., "The Effects of Guttman Weights on the Reliability of Predictive Validity of Objective Tests when Omissions are not Differentially Weighted." Journal of Educational Measurement. 12: 1975

Roen, S.R. and Burnes, A.J. Community Adaption Schedule and Preliminary Manual. New York: Behavioral Publications, Inc., 1968

Romo, B.E., "Attitudinal and Behavioral Correlates of Work Success Among Educable Mentally Retarded Young Adults in Oregon." Unpublished Doctoral Dissertation, University of Oregon, 1970

Rosen, M., Clark, G., and Kivitz. Habilitation for the Handicapped, Baltimore: University Park Press, 1977

Rosen, M., and Kivitz. "Psychological evaluation of the mentally retarded adult." In Brian Bolton (Ed.) Handbook of Measurement and Evaluation in Rehabilitation Baltimore, University Park Press, 1976

Rotter, J.B., "Social Learning and Clinical Psychology" 2nd Ed., New York, Prentice-Hall, 19

Sarason, S.B., Psychological Problems in Mental Deficiency. New York; Harper, 1953

Stephens, W.B., and Pedk, J.R., Success of Young Adult Retardates. Council of Exceptional Children Monograph. Washington D.C., 1968

Talbot, R.W. "The Relations Between Success and Failure in Community Adaption of Educable Retarded Persons, Their Level of Achievement Motivation, and Their Perceptions of the Causes for Success and Failure in Achievement Situations." Doctoral Dissertation, University of Oreogn, 1975

U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of Statistics, Characteristics of American Youth: 1974, Current Population Reports, 1975

U.S. Department of Labor, Bureau of Statistics, Employment and Earnings, Vol. 23, 1976

Weaver, T.R., "The incidence of Maladjustment Among Mental Defectives in Military Environment." American Journal of Mental Deficiency, 51: 1946

Windle, C. Prognosis of Mental Subnormals, Monograph Supplement to American Journal of Mental Defeciency, 66: (4) 1962

Wolfensberger, W. "Vocational preparation and occupation." In A. Baumeister (Ed.) Mental Retardation: Appraisal, Education and Rehabilitation. Chicago: Aldine Publishing Company, 1967

Zigler, E. and Balla, D. Personality factors in the performance of the retarded. J of Child Psychiatry 16: 1977

APPENDIX A

INSTRUCTIONS FOR THE ADMINISTRATION

OF THE FORCED CHOICE SELF DESCRIPTION INVENTORY

The Forced Choice Self Description Inventory (FCI) consists of 180 items each typed on a 3 x 5 card. The cards are in a fixed order and are mounted on two large rings so that one card may be exposed at a time. The first card is an instruction card to be read verbatim to the subject. Additional "reminder" cards will be found between sets of items. The last two sets of items require slightly different instructions. You will find that these items are preceded by a special instruction card to be read verbatim to the subject.

The 180 FCI items were prepared from 72 statements organized into six groupings or sets, 12 statements dealing with the subject's "social orientation and conduct", 12 statements dealing with his "self or personal care", 12 statements dealing with "managing money", 18 statements dealin with "work orientation", 12 statements dealing with "values and goals" an six statements dealing with "success orientation". These sets of 12 statements were divided into two subsets of six statements each and for each subset 15 items were formed by pairing each of the six statements with the other five. The set of 18 statements was divided into three subsets of six statements each and for each of these three subsets 15 items were formed by pairing each of the six statements with the other six. The final set of six statements formed an additional set of 15 items.

Instructions for Adminstration

For the FCI administration the examiner and the subject should be seated side by side. The cards should be in slear view so that the subject can see each item as the examiner reads them aloud. After telling the subject the general nature of the test, namely, that he will be asked to choose between things which he might do or believe in, and that he will find that all statements are repeated five times with different statements, the examiner begins by reading sloud the instructions on the first card, stressing the last sentence which acknowledges that "both might be like you," but the subject's job is to "choose the one that is most like you". Then proceed to the first item, reading it clearly and in a relatively even tone to avoid any influence on the subject's choice by intonation. Call the first statement A and the second one B. Pause briefly after reading the word OR. If the subject seems uncertain, encourage a reply by asking, "Which do you choose, A or B?" Proceed through the items in the exact order they have been arragned on the rings. Do not skip any. You will find that the "general societal" set (items 1-30) is first, the "self care" set (items 31-60) second, the "handling of money" set (items 61-90) third, the "work orientation" set (items 91-135) fourth, the "values and goals" set (items 136-165) fifty, and the "sucess orientation" set (items 166-180) last.

If fatigue is indicated, a five to ten minute break is recommended before beginning the "work orientation" set. Suggest that the subject get up, stretch, get a drink, etc. To introduce the set on "work orientation", the additional instructions are provided. A card containing these precedes this set. The last sets on "values and goals" and "success orientation have their own instructions which vary from the others. Remember to read the items in each pair evenly and clearly, pausing after the word OR. You may find that your subject prefers to do his own reading. This is quite alright so long as he reads all the words aloud.

Answers are to be recorded on a two-choice (true-false) IBM answer sheet. The subject's identification number will appear in the upper right hand corner. Record the subject's choices by blackening the space marked T if he chooses A, and F if he chooses B. Use a soft pencil.

IMPORTANT: MAKE SURE YOU TURN THE CARDS ONE AT A TIME.

AT THE END OF EACH SET CHECK TO SEE IF THE NUMBER OF THE LAST CARD CORRESPONDS TO THE ITEM NO. ON THE IBM ANSWER SHEET.

(If not, you will need to readminister that subset of items)

Record any departure from these instructions.

APPENDIX B

GENERAL INFORMATION QUESTIONNAIRE USED FOR THE FOURTH INTERVIEW OF COMMUNITY ADJUSTMENT FOLLOW-UP SAMPLE OF FORMER SPECIAL EDUCATION STUDENTS

(Note: Neither the Forced Choice Inventory items administered to S's after questions 33, 56, and 79 from 3 x 5 cards assembled on permanent rings, nor the paired comparison items dealing with "reasons for having one's own place" after item 67 and "reasons for popularity" also on 3 x 5 cards are included in this Appendix due to difficulty in reproducing.)

GUIDE FOR ADMINISTERING

FOURTH GENERAL INFORMATIIN QUESTIONNAIRE

The purpose of the GIQ is to track the post school living experiences of select individuals over a two year period of time. It is specifically directed toward work experience, vocational expectations, social living expectations, socialization, planning and goal achievement, and budgeting and knowledge of resources--areas of living directly relevant to the community adjustment of these subjects. To adequately gather information concerning these areas of living, the interviewer must make maximum use of this questionnaire and follow its instructions precisely. To this end, he or she must understand the importance of:

A. Rapport
B. Verbatim Questions vs Probes
C. Elaboration of Job Duties: Sheltered Employment
D. Interviewer Judgments
E. Interviewer Comments: Subject Comfort and Extent of Probing
F. Responses from Prior Interviews
G. Circling Responses

A. Rapport

Since the questionnaire comes first in the interview schedule, this is a most important time for you and the subject--you are getting to know one another and you should have established a rapport before proceeding with the rest of the interview. A friendly, relaxed relationship will help insure the subject's willingness to participate in future interviews. If at all possible, (without creating an uncomfortable situation), try to interview the subject out of hearing distance of others (family members, etc.).

B. Verbatim Questions vs Probes

If at all possible, ask verbatim those questions that are in caps and bracketed with quotation marks on the General Information Questionnaire form. If any question is inappropriate for a particular situation, record on the GIQ form the words you substituted. In some instance, however, the interviewer may have to go beyond the question as written, either to confirm a piece of information or to obtain more information. An example of a confirmation probe is: "ARE YOU SAYING THAT YOU REALLY WANT TO MOVE OUT?" An example of a proble to obtain more information is: "CAN YOU TELL ME MORE ABOUT THAT?" This latter probe is non-directive and should be used when you don't want specifically to lead the S. In some instances (i.e., 20, 21, 28, 32, and 47) you are specifically requested to use non-directive probes. On these occasions do not offer the subject specific examples (i.e., voc. rehab., newspaper). In other instances, you may find it necessary to use a non-directive probe even though there is no specific direction to do so. Please remember, whenever you use a probe that is not specifically called for by the directions, note (on the interview form) the questions you ask. This will help us better understand each particular interview as well as provide feedback with which to improve the interview format.

C. Elaboration of Job Duties: Sheltered Employment (Item 13 and 33c)

To more fully understand a subject's job, it's necessary to know what things he/she does on the job. Since the subjects will not usually elaborate their job duties unless asked, questions 13 and 33c are directed toward this end. However, even with these questions, the interviewer must be prepared to probe for specifics (e.g., "CAN YOU TELL ME MORE?" "DO YOU DO ANYTHING ELSE?")

One of the specific bits of information that interests us is whether the S works in a sheltered situation. A sheltered situation is one which demands less of the worker than a non-sheltered situation. The amount of supervision is typically very high since the employees are handicapped. Some well-known examples of sheltered workshops are Goodwill, St. Vincent de Paul, Arcraft, etc.; other sheltered workshops are not as well known as these.

It is important for us to know whether a subject's employment is sheltered. The interviewer should find this out if possible. However, NEVER ask the subject if his/her job is sheltered. This may make him defensive and hurt whatever rapport you have established.

Item 13 dealing with the subject's present job (if any) and item 33c dealing with prior jobs (if any) include the question "Sheltered?" Yes No. If the interviewer is certain that the job is sheltered (or not), circle the appropriate choice. Otherwise, leave it blank.

D. Interviewer Judgments

In addition to the informational items which need to be completed by the interviewer on the basis of subject responses, there are five items on the GIQ requiring your judgmental response. These are:

Items 15, 33d	"HOW DOES YOUR SUPERVISOR (OR BOSS) TREAT YOU?"
Items 16, 33e	"HOW DO PEOPLE YOU WORK WITH TREAT YOU?"
Items 21, 29	UNDERSTANDING OF CONCEPT OF JOB BENEFITS
Item 54	ATTITUDE TOWARD LIVING SITUATION
Item 60	"HOW DO YOU LIKE THE WAY YOU SPEND YOUR FREE TIME?"

Each of these items requires your asking the subject the question as worded on the questionnaire and then circling either "POSITIVE," "NEUTRAL," or "NEGATIVE," (abbreviated "POS," "NEUT," and "NEG," on the GIQ) according to the subject's response. Confirmatory probing and/or non-directive probing is permissible here if the subject's response is either too ambiguous to classify or clearly inconsistent with other statements made to you.

The following are examples of possible subject responses interpreted as "POSITIVE," "NEUTRAL," or "NEGATIVE" as a guide for your own judgment.

"POS" responses:

"She's just great, we get along well together." "Good." "Fine." "I'm happy about it."

"NEUT" responses:

"Not bad." "Alright." "O.K., I guess." "Somtimes good and sometimes bad."

"NEG" responses:

"He pushes me, even when I'm doing the best I can." "They keep after me and expect too much." "We are always fighting." "We never get along."

However, it is important to pay attention to both verbal and non-verbal cues when evaluating satisfaction. For example, a person may say "fine." If this were said with enthusiasm, i.e., "Fine!" "Just fine!" etc., then "POS" would be scored. However, if it were said with hesitation, lack of conviction, or little feeling, "NEUT" would be scored. In addition, it is possible, although not likely, that someone would say "fine" but accompany it with anger or irritation, indicating the incongruity of verbal and non-verbal cue, or unhappiness with the situation. In this case, the interviewer should probe further. When there is uncertainty on the part of the interviewer as to how to rate the response, further probing is necessary.

E. Interviewer Comments: Subject Comfort and Extent of Probing

At the end of each section is a place for interviewer comments. The project is particularly interested in finding out (1) how comfortable the subject is in responding to the questions in each section and (2) the amount of probing required to elicit the responses in each section. Clues to the subject's comfort can be found in the ease with which he/she answers each question, whether or not he/she shifts around in the seat, refuses to answer questions, etc. If, on the basis of such cues, the interviewer judges the S to have been uncomfortable in responding to the questions in a particular situation, he/she should indicate this by filling in the appropriate information after "If subject seemed uncomfortable, specify." Similarly, if the interviewer has to do extensive probing in any particular situation, he/she should indicate this by filling in appropriate information after "If subject required extensive probing, specify."

In addition to the above, the interviewer should record any information which will help clarify or document responses to the items in that section. For instance, pressure from other family members unavoidably present during the interview should be noted. You should also record any deviation from standard procedure (e.g., additional probing etc.).

F. Responses from Prior Interview

Some items will refer back to information obtained during the prior interview. For instance, item 8 deals with the S's occupation at the time of the prior interview. If the S was working, his job will be filled in (e.g., S was working before as a janitor). Other items which will be filled in are 22, 47, 48, 62, 71a & b, and 79. In contrast, some items (54, 60, 68) will have an alternative circled. For example, item 54 dealing with the S's previous attitude toward his living situation has three alternatives: POS NEUT NEG. One of these will be circled to provide the interviewer with information as to how the S felt about his living situation at the time of the last interview. Finally, if a particular item does not apply to an S, "omit" will be written acorss this item and the interviewer will then skip this item for that subject.

G. Circling Responses

Many items will have "Yes" or "No" alternatives (e.g., item 8 "ARE YOU WORKING?" Yes No). Other items will have more than two alternatives. For instance, item 15: "HOW DOES YOUR SUPERVISOR (OR BOSS) TREAT YOU?" POS NEUT NEG has three alternatives. At all times, unless otherwise directed, circle only one response. Specific exceptions to this latter direction are items 32a & b, 56, 61, 69, 70, and 74.

GENERAL INFORMATION QUESTIONNAIRE

MAINTENANCE

1. Subject Number _____

2. Full Name _____
First Middle Last

3. Interviewer _____

4. Date _____

5. Age _____ _____
Birthdate

6. Home Address _____
Street and Number

_____
City State Zip Code

7. Home Phone Number _____ ( )
Area Code

WORK SITUATION

8. "ARE YOU WORKING?" Yes No S was not working before as a _____

If S was working before and

a. Is working now go to 9-21

b. Is not working now go to 22-32

If S was not working before and

a. Is working now go to 13-21.

b. Is not working now go to 26-32

ASK QUESTIONS 9-21 ONLY OF SUBJECTS WHO ARE CURRENTLY EMPLOYED

9. "ARE YOU STILL WORKING AT THE SAME PLACE YOU WERE WHEN WE INTERVIEWED YOU LAST SPRING?" Yes No

If "Yes" go to 13. If "No" go to 10.

10. "CAN YOU TELL ME WHY YOU LEFT?" _____

_____

11. "HOW LONG AGO DID YOU LEAVE?" _____

12. "HOW LONG HAVE YOU HAD YOUR PRESENT JOB?" 141 _____

13. "WHAT SORT OF THINGS DO YOU DO ON YOUR JOB?" (Probe for specifics; See Guide, Section C.)

(Specify) _____

Is the S's Job Sheltered: Yes No

14. "HOW MANY HOURS A WEEK DO YOU WORK?" _____

15. "HOW DOES YOUR SUPERVISOR (OR BOSS) TREAT YOU?" POS NEUT NEG

16. "HOW DO PEOPLE YOU WORK WITH TREAT YOU?" POS NEUT NEG

17. "HOW DID YOU GET YOUR JOB?"

Self Voc Rehab Friends Other (Specify) _____
Newspaper Job Agency Relatives

18. "HOW WELL DO YOU LIKE YOUR JOB?"

Very well o.k. Don't like it Other (Specify) _____

19. "IS THIS THE KIND OF JOB YOU'D LIKE TO HAVE FOR THE NEXT YEAR OR TWO?"

Yes No Don't Know

20. "IS THERE ANYTHING YOU DON'T LIKE ABOUT YOUR JOB?" Yes No

(Specify: Use Non-directive Probe) _____

21. "DO YOU RECEIVE ANY JOB BENEFITS?" (Use a non-direct probe to ascertain S's concept of "benefits." If S responds "No," ask: "WHAT JOB BENEFITS WOULD YOU LIKE TO RECEIVE?") Circle your judgment below.

Yes, S understands concept | S partially understands concept | S doesn't understand concept

Interviewer Comment 21: _____

GO TO ITEM 30

ASK 22-29 ONLY OF SUBJECTS WHO ARE CURRENTLY UNEMPLOYED

22. "WHEN WE LAST TALKED, YOU WERE WORKING AS A _____."
"CAN YOU TELL ME WHAT HAPPENED?" _____

23. "WHEN DID YOU LEAVE YOUR JOB?" _____

24. "HOW DID YOUR SUPERVISOR (OR BOSS) TREAT YOU?" _____

25. "HOW DID THE PEOPLE YOU WORKED WITH TREAT YOU?" _____

26. "ARE YOU LOOKING FOR A JOB?" Yes No

27. If Yes: "WHAT KIND OF A JOB ARE YOU LOOKING FOR?" _____

28. "WHAT ARE YOU DOING ABOUT FINDING ONE?" (Use a non-directive probe if necessary.)

Self Voc Rehab Friends Other (Specify) _____
Newspaper Job Agency Relatives

29. "IN THIS KIND OF JOB, WHAT JOB BENEFITS WOULD YOU LIKE TO RECEIVE?" (Use indirect probe to ascertain S's concept of "benefits.")

S understands concept S partially understands concept S doesn't understand concept

Interviewer Comment 29: _____

GO TO ITEM 30

30. "HAVE YOU THOUGHT ABOUT GETTING MORE JOB TRAINING?" Yes No
If no, go to 32b.

31. If yes: "WHAT KIND OF JOB TRAINING?" _____

32. a If yes to 30: "HOW WOULD YOU FIND OUT WHERE THERE WAS A TRAINING PROGRAM FOR YOU?" (Use non-directive probe if necessary.)

b. If no to 30: "IF YOU WANTED TO GET MORE JOB TRAINING, HOW WOULD YOU FIND OUT WHERE THERE WAS A TRAINING PROGRAM FOR YOU?"

Check all S's responses:

__1. From professional persons (former teachers, counselors, etc.)
__2. From nonprofessional persons (friends, relatives, etc.)
__3. From advertisements (T.V., newspaper, etc.)
__4. From current or past employers
__5. From current or past co-workers
__6. Other (specify) _____

33. "WHAT (OTHER) JOBS HAVE YOU HAD SINCE WE TALKED TO YOU LAST?" (Disregard irregular jobs which total less than 2 hours a week.)

Job 2

a. "HOW MANY HOURS A WEEK DID YOU WORK?" _____
b. "HOW LONG DID YOU WORK THERE?" _____
c. "WHAT DID YOU DO ON THE JOB?" _____
Sheltered: Yes No
d. "HOW DID YOUR SUPERVISOR (OR BOSS) TREAT YOU?" POS NEUT NEG
e. "HOW DID THE PEOPLE YOU WORKED WITH TREAT YOU?" POS NEUT NEG
f. "WHY DID YOU LEAVE?" _____

Job 3

a. "HOW MANY HOURS A WEEK DID YOU WORK?" _____
b. "HOW LONG DID YOU WORK THERE?" _____
c. "WHAT DID YOU DO ON THE JOB?" _____
d. "HOW DID YOUR SUPERVISOR (OR BOSS) TREAT YOU?" POS NEUT NEG
e. "HOW DID THE PEOPLE YOU WORKED WITH TREAT YOU?" POS NEUT NEG
f. "WHY DID YOU LEAVE?" _____

If S has had more than two jobs, continue on back of page 4 with same questions.

Interviewer: _____

Turn to set of FCI cards 1-54. Note: MALE and FEMALE items are DIFFERENT. USE BLUE CARD DECK FOR MALES: PINK FOR FEMALES. Record responses to items 1-54 on IBM answer sheet. Then continue with interviewer remarks and interview item 33.

Interviewer Comments: (Items 1-33 and FCI cards 1-35)

NONE (Circle if no comment necessary)

If S seemed uncomfortable, specify: _____

If S required extensive probing, specify: _____

Other Comments: _____

VOCATIONAL EXPECTATIONS

34. "WHAT SORT OF WORK DO YOU THINK YOU'LL BE DOING NEXT YEAR?" (If "don't know," use probe: "WHAT KIND OF WORK WILL YOU TRY TO GET NEXT YEAR?")

If S indicated job other than present job, go directly to 35. Otherwise, go to 41.

35. "HOW DO YOU PLAN TO GET THAT JOB?"

36. "WHAT THINGS WOULD YOU LIKE DOING IN THAT JOB?"

37. "WHAT THINGS WOULDN'T YOU LIKE DOING IN THAT JOB?"

38. "DO YOU NEED SOME TRAINING TO GET THIS JOB?" Yes No

39. If Yes: "HOW WOULD YOU GET THIS TRAINING?"

40. "HOW MUCH MONEY WOULD YOU LIKE TO MAKE ON THIS JOB?"

41. "IS THERE A JOB YOU PLAN TO HOLD FOR MOST OF YOUR LIFE?"

Yes (specify) No If no, go to 47.

42. "WHAT THINGS WOULD YOU LIKE DOING IN THAT JOB?"

43. "WHAT THINGS WOULDN'T YOU LIKE DOING IN THAT JOB?"

44. "DO YOU NEED SOME TRAINING TO GET THIS JOB?" Yes No

45. If Yes: "HOW WOULD YOU GET THIS TRAINING?"

46. "HOW MUCH MONEY WOULD YOU LIKE TO MAKE ON THIS JOB?"

Interviewer: Ask 47a if job written in present long range job plans above (item 41) is different from the response written in below (item 47).

47. a. "WHEN WE LAST TALKED, YOU SAID YOU MIGHT LIKE TO ." "HOW DO YOU FEEL ABOUT THAT NOW?" (Probe to find out reasons for change in plans, if any.)

Interviewer: Ask 47b if job written in present long range job plans above (item 41) is the same as the long range job plan written in item 47, but S has not pursued this goal.

47b. "WHEN WE LAST TALKED, YOU ALSO SAID YOU'D LIKE TO _____. WHAT'S KEEPING YOU FROM GETTING THIS JOB?" (Interviewer: probe to find out reasons S is not pursuing his long range job goal.)

_____

_____

_____

Interviewer Comments: (Items 34-47b)

NONE (Circle if comment not necessary)

If S seemed uncomfortable, specify: _____

If S required extensive probing, specify: _____

Other Comments: _____

_____

_____

LIVING ARRANGEMENTS

48. "ARE YOU STILL LIVING WITH _____?" Yes No

If "No":

49. "WHEN DID YOU MOVE OUT?" _____ (months ago)

"WHY?" _____

50. "WHO ARE YOU LIVING WITH NOW?" _____

51. "HOW LONG DO YOU THINK YOU'LL STAY IN THIS SITUATION?" _____

52. "WHAT ARE THE THINGS YOU LIKE ABOUT LIVING (HERE) _____

_____

53. "WHAT MIGHT MAKE LIVING HERE EVEN BETTER?" _____

_____

Interviewer: Subject's previous attitude toward his living situation is circled in the box below. Judge S's attitude toward present living arrangement, probe to find out attitude, if necessary.

54. Previous Attitude: POS NEUT NEG Present Attitude POS NEUT NEG

55. "DO YOU WANT TO BE ON YOUR OWN?" Yes No Don't Know Already On Own

56. If Yes or D.K.: "WHAT WOULD HAVE TO HAPPEN BEFORE YOU COULD BE ON YOUR OWN?" (Interviewer: Use indirect probe to learn the happenings that would promote this change.)

__1. Get job
__2. Get better job (more money)
__3. Roommate--people to live with
__4. Present situation becomes unpleasant
__5. Increased self confidence
__6. Change in living arrangement at present--parents move, etc.
__7. Other (specify)

Interviewer:

Return to set of FCI cards USE BLUE DECK FOR MALES: PINK FOR FEMALES. Start where you left off with item 55 and continue through item 69. Record responses to items 55-69 on IBM answer sheet. The continue with comments and interview item 57.

Interviewer Comments: (Items 48-56 and FCI 36-50.)

NONE (Circle if comment not necessary)
If S seemed uncomfortable, specify: _____
If S required extensive probing, specify: _____
Other Comments: _____

_____

SOCIALIZATION

57. "WHO DO YOU SPEND YOUR FREE TIME WITH?" (Specify alone, or name of person and relationship to S, i.e., friend, relative, etc.).

_____

_____

_____

58. "WHAT SORT OF THINGS DO YOU DO WITH (ask each name)?" (Probes: eat out, watch T.V., movies, hobbies, clubs, etc.)

_____

_____

_____

59. "WHICH ONE OF THESE PERSONS DO YOU SPEND THE MOST TIME WITH?" _____

60. "HOW DO YOU LIKE THE WAY YOU SPEND YOUR FREE TIME?" POS NEUT NEG

Previous Response: POS NEUT NEG

If change in response, ask 61.

61. "LAST TIME YOU SEEMED MORE (LESS) SATISFIED ABOUT HOW YOU SPENT YOUR FREE TIME. WHY DO YOU FEEL DIFFERENTLY NOW?" (Use non-specific probe, and circle all S's responses.)

More Satisfaction

1. Found interesting activity
2. Found friends
3. Found boy/girl friend
4. Have transportation
5. Other (specify) _____

Less Satisfaction

1. No interesting activities
2. No friends
3. No boy/girl friend
4. No transportation
5. Other (specify) _____

62. "LAST TIME YOU SAID YOU WERE INTERESTED IN _____."

"HOW MUCH OF THAT ACTIVITY HAVE YOU BEEN ABLE TO DO?" (Probe if necessary to discover reason activity not pursued by S. If plan is same, but no movement has been made toward this goal, "IS THERE ANYTHING GETTING IN YOUR WAY?"

Nothing | Changed Mind | Tried But Quit | Doing it a Little | Doing it Regularly

Other (specify) _____

Reason given for not pursuing activity: _____

63. "DO YOU PLAN TO TRY ANY NEW HOBBIES OR SPORTS?"

Yes (specify) _____ No

64. "HAVE YOU MADE ANY NEW FRIENDS SINCE I LAST TALKED TO YOU (SINCE THE LAST INTERVIEW)?"

Yes No

If Yes:

65. a. "WHO ARE THEY?" List first names of no more than three new friends below:

1. _____ 2. _____ 3. _____

b. "WHERE DID YOU MEET THEM?" Use the following in writing responses:

Work, neighborhood, church, recreation, relatives, other (specify). Do not offer these as examples.

1st friend _____ 2nd friend _____ 3rd friend _____

c. "HOW OFTEN DO YOU SEE _____?" (Names of friends, one at a time.)

Use the following in coding: D (daily), ST (several times a week), W (weekly), and M (monthly).

1st friend	D	ST	W	M	2nd friend	D	ST	W	M	3rd friend	D	ST	W	M

66. "DO YOU HAVE A SPECIAL GIRLFRIEND (BOYFRIEND)?" Yes No S is married

67. "WOULD YOU LIKE TO GET MARRIED SOMETIME?" Yes No Don't Know Married

Interviewer:

Return to FCI cards. USE BLUE DECK FOR MALES; PINK FOR FEMALES. Start where you left off with item 70 and continue through item 84. Record responses to items 70-84 on IBM answer sheet. The continue with comments and interview item 68 below.

Interviewer Comments: (Items 57-67, and FCI 51-65.)

NONE (Circle if comment not necessary)
If S seemed uncomfortable, specify: _____
If S required extensive probing, specify: _____
Other Comments: _____

Interviewer: If S seems tired, take a break.

TRANSPORTATION

Interviewer: In Spring, 1976 interview, S indicated the following in regard to possession of a driver's license:

Has One	Planned to get one soon	eventually	Not interested in having one	Not asked this question

68. "DO YOU HAVE A DRIVER'S LICENSE YET?" Yes No Don't want one

69. "HOW DO YOU GET AROUND--BACK AND FORTH TO WORK, SHOPPING, ETC.?" (Probe if necessary.) Circle all S's responses:

1. Driven by others
2. Walk
3. Ride bus
4. Bike
5. Drives self
6. Other (specify) _____

70. If S has a driver's license, and doesn't drive self, probe to find out why S doesn't drive self: Circle response(s). ("WHAT KEEPS YOU FROM DRIVING YOURSELF?")

1. No car
2. No insurance
3. Not permitted to drive
4. Doesn't want to drive
5. Other (specify) _____

PLANNING AND GOAL ACHIEVEMENT

71. "IN THE LAST INTERVIEW YOU SAID YOU WOULD PROBABLY _____

a. Interviewer: Use probe to find out if S did this: Yes No

If not, why not: _____

"YOU ALSO SAID YOU WOULD PROBABLY _____

b. Interviewer: Use probe to find out if S did this: Yes No

If not, why not: _____

c. "DID SOMETHING ELSE IMPORTANT HAPPEN TO YOU SINCE WE LAST TALKED?"

_____

72. "IS THERE SOMETHING IMPORTANT THAT YOU EXPECT TO DO IN THE NEXT YEAR?"

_____

Interviewer Comments: (Items 68-72)

NONE (Circle if comment not necessary)

If S seemed uncomfortable, specify: _____

If S required extensive probing, specify: _____

Other Comments: _____

_____

INCOME AND EXPENSES

73. "DO YOU MIND IF I ASK YOU SOME QUESTIONS ABOUT HOW MUCH MONEY YOU MAKE? REMEMBER, YOU DON'T HAVE TO ANSWER IF YOU DON'T WANT TO."

Yes No

If S minds, go to question 76.

If S is willing, ask questions 74 and 75.

74. "HOW MUCH MONEY DID YOU GET FROM: (Ask for a, b, and c. Circle words S doesn't understand. Explain if necessary.)

a. WORK LAST MONTH" _____
b. RELATIVES LAST MONTH" _____
c. SOCIAL SECURITY OR WELFARE LAST MONTH" _____

75. "DO YOU EXPECT TO RECEIVE ABOUT THE SAME AMOUNT OF MONEY NEXT MONTH?"

Yes No Don't Know

If "no" or "don't know": "WHY NOT?" _____

_____

76. "DO YOU HELP PAY ANY BILLS AROUND THE HOUSE (APARTMENT)?"

Yes No

a. "ABOUT HOW MUCH DO YOU HELP PAY?" _____

77. "HAVE YOU BEEN ABLE TO SAVE ANY MONEY SINCE I LAST TALKED TO YOU (SINCE THE LAST INTERVIEW)?" Yes No

78 If Yes: "ARE YOU SAVING FOR ANYTHING SPECIAL?"

Specify: _____

79. "LAST TIME YOU SAID YOU WERE SAVING FOR _____."

"HOW ARE YOUR PLANS COMING?" (Interviewer: Use indirect probe to find out reasons for change or failure in plans.)

_____

_____

Interviewer Comments: (Items 73-79)

NONE (Circle if comment not necessary)

If S seemed uncomfortable, specify: _____

If S required extensive probing, specify: _____

Other Comments: _____

_____

REFERENCE PERSON

We don't know yet, but we are hoping to be able to continue these interviews next year. If we get money to continue, would you like to still be in our study?

Yes No Don't Know

If Yes, or Don't Know: "WHO WOULD BE SOMEONE WHO WOULD KNOW WHERE YOU WERE IF YOU MOVED?"

Full Name: _____

Address: _____
Street

_____
City State Zip

Phone: _____

Interviewer: COMPLETE FCI ITEMS. START WITH ITEM 85. BE SURE TO USE BLUE DECK FOR MALES AND PINK DECK FOR FEMALES.

AFTER COMPLETING THE FCI, CONDUCT THE DISCUSSION OF THE S'S PROBLEMS AND OBSTACLES IN VOCATIONAL AND SOCIAL ADJUSTMENT. RECORD YOUR NOTES ON PAGE 13.

INTERVIEWER REMARKS: ADMINISTRATION

FILL IN THE FOLLOWING QUESTIONS IMMEDIATELY AFTER LEAVING THE RESPONDENT.

How would you describe the state of repair of the respondent's home?

1 Sound
2 Deterioration
3 Dilapidated
9 Can't tell (specify why) _____

_____

How would you describe the appearance of the exterior of the respondent's home?

1 Very attractive
2 Attractive
3 Average
4 Unattractive
5 Very unattractive
9 Can't tell (specify why) _____

_____

How would you describe the inside appearance of the respondent's home?

1 Very clean (obvious care, nothing out of place)
2 Average (not spotless but clean, generally neat)
3 Poor (dirty, messy, odors, needs repairs)
9 Can't tell (specify why) _____

_____

How was the cooperation of the respondent?

1 Very good
2 Good
3 Fair
4 Poor

Explain: _____

_____

_____

_____

_____

Respondent's reaction to interviewer:

1 Friendly--warm
2 Passive--needed prodding
3 Hostile--cold
4 Fearful--threatened
5 Other (specify) _____

_____

Judge subject as you would judge any person on the dimension of general attractiveness and neatness of dress. This subject appears:

1 Very attractive
2 Attractive
3 Average
4 Unattractive
5 Very unattractive

Judge subject in terms of "dull," "average," or "bright" on the basis of various cues, such as facial expression, brightness of eyes, content and style of communication. This subject appears:

1 Very dull
2 Dull
3 Average
4 Above average
5 Bright

List any handicaps or obvious physical problems the subject has; i.e., orthopedic handicaps, speech defects (be specific), extreme obesity, etc.

_____

_____

_____

Who was present in the same room during the interview?

1 No one
2 Very young children (under about age six)
3 Older children (about age six or over)
4 Spouse
5 Parent(s)
6 Other relatives or unrelated individuals

How reliable are the respondent's responses?

1 Completely reliable
2 Somewhat reliable
3 Uncertain
4 Somewhat unreliable
5 Completely unreliable

Explain (specify during which parts of the interview) _____

Was there anything unusual about the interview situation which you think affected the respondent's answers?

1 Nothing unusual
2 Something unusual

(Describe for 2 above) _____

Acquaintance of interviewer with respondent prior to interview:

1 No acquaintance--stranger
2 Slight acquaintance--met socially
3 Slight acquaintance--met professionally (former student, counselee, etc.)
4 Well acquainted--met socially
5 Well acquainted--met professionally
6 Intimately acquainted--close friends
7 Other: Explain _____

Total length of interview

_____ Minutes

Additional Comments:

APPENDIX C

MULTIPLE CRITERIA RATING SCALE OF COMMUNITY ADJUSTMENT

Instructions to Counselors:

You are being asked to rate your work study program clients with respect to three criteria: (1) a more general consideration of their integration into their community main stream, (2) their employability from the perspective of the requirements of potential employers, and (3) the adequacy of their social adjustment from your perspective as a counselor. For each criteria we have prepared a page of "considerations" which you should use as guidelines in making your selection of reference persons and in making your ratings. Read these carefully. It is most important that you are guided by these considerations in making your judgments.

There are two steps to the proposed rating procedure:

STEP A:

Before proceeding with the individual ratings, the rating procedure requires your developing a frame of reference. At the heading of the rating sheets are three boxes; one labeled LEAST, one labeled MOST, and one labeled MEDIUM. Considering all the former work study students whom you have worked with these last several years, whether they are on the rating list or not, who would you decide is the most successful with respect to all three of the rating criteria? Perhaps some person might tie with him (or her) but none exceeds him (or her). Write that person's name in the box labeled MOST. Similarly, considering all the former work study students with whom you have worked, choose that one person whom you would consider is the very lowest (least successful) on all 3 rating criteria and write that person's name in the box labeled LEAST. And similarly, choose your MEDIUM person, a former work study student, someone you would consider as middle on all three rating scales, and write that person's name in the MEDIUM box.

STEP B:

The three names you have entered in the boxes are now to be used as points of reference for your rating of each of the persons listed in the left margin of the rating pages. (If there are persons whom you don't know well enough to rate, so indicate.) As you begin each new rating page, recopy the reference persons names into their respective boxes at the top of the new page. The rating task is to consider each listed person with respect to each of the three criteria, comparing him or her with your reference persons. Start by deciding which reference person your listed person is most like on the first criterion and than make an X somewhere on the line to the right of that criterion statement indicating whether he is "better" or "less good" or the same as your reference person with respect to that first criterion. Then do the same for the other two criteria.

We realize that you may be more confident of your rating of how some persons are doing more than others because you may have more information about them, know them better, or have seen them more often. Therefore, before going on to the next name, we are asking you to indicate your confidence in the set of three ratings you just made by marking an X on the line below that person's name. An "X" toward the left end of the line indicates less confidence than an "X" toward the right end of the line.

MULTIPLE CRITERIA RATING SCALE FOR COMMUNITY ADJUSTMENT OF YOUNG ADULTS

Name of Rater _____

Rater's Frame of Reference

LEAST	MEDIUM	MOST

INTEGRATION (into community)

EMPLOYABILITY (employer's standards)

SOCIAL ADJUSTMENT (counselor's standard)

Low _____ High

Confidence in above rating

INTEGRATION (into community)

EMPLOYABILITY (employer's standards)

SOCIAL ADJUSTMENT (counselor's standard)

Low _____ High

Confidence in above rating

INTEGRATION (into community)

EMPLOYABILITY (employer's standards)

SOCIAL ADJUSTMENT (counselor's standard)

Low _____ High

Confidence in above rating

INTEGRATION (into community)

EMPLOYABILITY (employer's standards)

SOCIAL ADJUSTMENT (counselor's standard)

Low _____ High

Confidence in above rating

Integration

Consider the following information before making an integration rating:

1. General integration as a member of the community
   --Is subject's general appearance acceptable?
   --Are subject's conversational skills acceptable?
   --Is subject's behavior tolerable?

2. Responsibility
   --Can subject be depended on to get to places and return--to job, to shopping, etc.?
   --Can subject be depended on to carry through with plans?

3. Independence and self-reliance
   --Does subject make own decisions regarding jobs, goals, and living situation? Consider also subject's use of money, budgeting, shopping, and spending.
   (Housewives: managing the home, i.e., planning and shopping for meals, ordering the house, and taking care of children's needs).
   --Is subject living independently and contributing fully or partially to own self-support. (Marriage suggests more independence than remaining in care of parent but needs confirmation as to extent and success of self-management.)
   --To what extent is subject independent of others for transportation (drives a car, rides a bike, takes the bus versus relying on others)?
   --Consider employability of subject (Consider not just if subject is employed but if subject is employable. Extremely low subjects on employability cannot be rated extremely high on integration.)

Employability

Consider the following information before making an employability rating:

1. Social skills as they apply to a work situation, i.e., ability to get along with boss and fellow workers.
   --Look at subject's satisfaction with boss and co-workers in present job.
   --Look at subject's treatment by boss and co-workers in past jobs.
   --Consider any comments by subject concerning social relations that may be applicable to a job situation.
2. Work orientation, i.e., willingness and interest in jobs
   --If not working, is subject actively seeking a job?
   --Is subject interested in being self suffjcient?
   --Is subject satisfied with present job and why or why not?
   --Do "plans for the future" include occupational plans? What kind? How realistic?
   --Does job history include long periods of unemployment and why?
3. Employment skills
   --Has subject had high school work experience and/or DVR training or other training?
   --Looking at job history and job training, does subject have a sufficient number of skills to be qualified for more than one job?
   --Looking at job history, has subject been able to handle job demands?
   --Is subject's general appearance and manner of behavior acceptable by employer's standards?
   --Looking at job history, what general level of responsibility have jobs demanded? (i.e., sheltered workships demand much less responsibility than many other jobs.)
   --Do "plans for future" include plans for further job training?

Social Adjustment

Consider the following information before making a social adjustment rating:

1. Social relations with other persons
   --How does subject get along with parents?
   --How does subject get along with brothers and sisters?
   --How does subject get along with supervisor and co-workers in present job and past jobs?
   --Has subject made friendships (see Leisure Section of GIO and Names Test)
   --Consider any comments made by subject concerning his social contacts.

2. Leisure activities
   --Are subject's leisure activities spent mainly alone or with others?
   --What proportion of subject's leisure activities require planning and structure from outside agencies (YMCA dances, clubs, etc.) as opposed to spontaneously initiated activities?
   --Are subjects leisure activities spent mainly with family members or with friends?

3. Subjects acceptability by others
   --What is interviewer's impression of subjects personal attractiveness, humor, energy, conversational ease, etc.?

MULTIPLE CRITERIA RATING SCALE FOR COMMUNITY ADJUSTMENT OF YOUNG ADULTS

Rater's Frame of Reference

LEAST | MEDIUM | MOST

INTEGRATION (into community)
EMPLOYABILITY (employer's standards)
SOCIAL ADJUSTMENT (counselor's standard)

INTEGRATION (into community)
EMPLOYABILITY (employer's standards)
SOCIAL ADJUSTMENT (counselor's standard)

INTEGRATION (into community)
EMPLOYABILITY (employer's standards)
SOCIAL ADJUSTMENT (counselor's standard)

INTEGRATION (into community)
EMPLOYABILITY (employer's standards)
SOCIAL ADJUSTMENT (counselor's standard)

INTEGRATION (into community)
EMPLOYABILITY (employer's standards)
SOCIAL ADJUSTMENT (counselor's standard)

INTEGRATION (into community)
EMPLOYABILITY (employer's standards)
SOCIAL ADJUSTMENT (counselor's standard)

APPENDIX D

OCCUPATIONAL LEVELS ASSIGNED TO REPORTED EMPLOYMENTS

1. UNSKILLED BLUE COLLAR WORKER	boxboy busboy dishwasher garbage collector, etc. sheltered work
2. SEMI-SKILLED BLUE COLLAR WORKER	bus driver cashier day care farm worker janitor laundry worker motel maid restaurant waitress untrained nurse's aide
3. MORE SKILLED BLUE COLLAR; SEMI SKILLED WHITE COLLAR	cook construction dockworker file clerk mill worker nurse's aide (trained) railroad worker salesperson security guard store clerk typist
4. SKILLED BLUE COLLAR; SKILLED WHITE COLLAR	bank clerk barber carpenter factory machine operator insurance agent labor foreman mailman small business manager mechanic plumber office manager secretary
5. SEMI PROFESSIONAL	bookkeeper electrician farm owner reporter, radio-TV announcer trained machinist welfare worker; public agency worker
6. PROFESSIONAL	architect banker government administrator lawyer professor, teacher

APPENDIX E

FORCED CHOICE SELF DESCRIPTION INVENTORY, GENERALIZATION KEY (FEMALE)

ITEM	KEYED RESPONSE STATEMENTS	ALTERNATIVE RESPONSE
5	LIKES TO FEEL USEFUL	THINKS A PERSON SHOULD GET WHAT SHE CAN
7	TRUSTS MOST PEOPLE TO BE FAIR	DOESN'T NEED TO FOLLOW THE CROWD
11*	BELIEVES IT'S UP TO YOU TO MAKE IT OR NOT	LIKES FRIENDS TO HELP DECIDE THINGS
29	BELIEVES IN HELPING OTHERS	BELIEVES IT'S UP TO YOU TO MAKE IT OR NOT
61	DOESN'T LIKE BORROWING MONEY	KNOWS HOW TO SAVE SOME MONEY
69	SOMETIMES BUYS THINGS HE/SHE CAN'T AFFORD	RATHER HAVE LOTS OF FRIENDS THAN LOTS OF MONEY
70	DOESN'T LIKE BORROWING MONEY	DOESN'T NEED ADVICE ON HOW TO SPEND MONEY
75	DOESN'T LIKE BORROWING MONEY	SURPRISED WHEN HE/SHE RUNS OUT OF MONEY
76	PAYS FOR HIS/HER OWN CLOTHES	KNOWS HOW TO SAVE SOME MONEY
94	WOULD LIKE MORE RESPONSIBILITY AT WORK	WILL QUIT WORKING WHEN HE/SHE HAS ENOUGH MONEY
99	USUALLY DOESN'T MIND WORKING	SHOULD NOT DO MORE THAN HE/SHE IS PAID FOR
100	WHEN KNOWS WHAT TO DO, DOESN'T LIKE BEING TOLD	LIKES TO FINISH A JOB SO IT CAN BE SHOWN
103	USUALLY DOESN'T MIND WORKING	LIKES TO FINISH A JOB SO IT CAN BE SHOWN
106*	WHEN KNOWS WHAT TO DO, DOESN'T LIKE BEING TOLD	SHOULD NOT DO MORE THAN HE/SHE IS PAID FOR
127	USUALLY GETS YOUR WORK DONE	SHOULD NOT DO MORE THAN HE/SHE IS PAID FOR
131	DOESN'T LIKE IT WHEN THERE'S NO WORK	DOES MORE THAN HIS/HER SHARE
136	HAVING FRIENDS	GETTING HELP FROM OTHERS
140	SAVING FOR TOMORROW	HAVING FRIENDS
142	HAVING A STEADY JOB	HAVING GOOD LUCK
144*	HAVING A STEADY JOB	GETTING HELP FROM OTHERS
149	SAVING FOR TOMORROW	HAVING GOOD LUCK
151	HAVING A STEADY JOB	HAVING FRIENDS
160	SAVING FOR TOMORROW	GETTING HELP FROM OTHERS
161	DEPENDING ON YOURSELF	HAVING OTHER PEOPLE LIKE YOU
164	BEING ABLE TO DO THINGS WELL	GETTING HELP FROM OTHERS
166	THEY WORKED HARD	THEY FIND IT EASY TO DO THE RIGHT THING
167	THEY KNOW MORE HOW TO DO THINGS	THEY ARE LIKED BY MOST PEOPLE
172*	THEY FIND IT EASY TO DO THE RIGHT THING	THEY HAD GOOD LUCK
178	THEY HAVE BEEN HELPED BY OTHER PEOPLE	THEY HAD GOOD LUCK
179	THEY WORKED HARD	THEY ARE LIKED BY MOST PEOPLE

* Also in male key

APPENDIX E

FORCED CHOICE SELF DESCRIPTION INVENTORY, GENERALIZATION KEY (MALE)

ITEM	KEYED RESPONSE STATEMENTS	ALTERNATIVE RESPONSE
2	LIKES TO BE LEADER WHENEVER HE/SHE CAN	BELIEVES ITS UP TO YOU TO "MAKE IT" OR NOT
3	THINKS PEOPLE SHOULD ADMIT WHEN THEY'RE WRONG	BELIEVES IN EVENING THE SCORE
8	BELIEVES IN HELPING OTHERS	BELIEVES IN EVENING THE SCORE
11*	BELIEVES IT'S UP TO YOU TO "MAKE IT" OR NOT	LIKES FRIENDS TO HELP DECIDE THINGS
16	THINKS PEOPLE SHOULD ADMIT WHEN THEY'RE WRONG	LIKES FRIENDS TO HELP DECIDE THINGS
18	LIKES TO BE LEADER WHENEVER HE/SHE CAN	BELIEVES IN HELPING OTHERS
21	BELIEVES IN HELPING OTHERS	LIKES FRIENDS TO HELP DECIDE THINGS
24	BELIEVES IT'S UP TO YOU TO "MAKE IT" OR NOT	BELIEVES IN EVENING THE SCORE
26	LIKES TO FEEL USEFUL	ALWAYS TRIES TO FOLLOW THE RULES
28	TRUSTS MOST PEOPLE TO BE FAIR	FEELS THAT LUCK COUNTS A LOT IN MAKING IT
35	KNOWS HOW TO KEEP HIM/HER SELF FIT	KEEPS ROOM CLEAN
40	KNOWS HOW TO KEEP HIM/HER SELF FIT	LIKES TO WEAR WHAT'S IN STYLE
44	IS PRETTY HEALTHY	KNOWS HOW TO KEEP HIM/HER SELF FIT
95	WILL WORK HARD IF TREATED FAIRLY	LIKES TO FINISH A JOB SO IT CAN BE SHOWN
101	WILL WORK HARD IF TREATED FAIRLY	SHOULD NOT DO MORE THAN HE/SHE IS PAID FOR
102	INTERESTED IN DOING JOB WELL	LIKES TO SHOW HOW MUCH THEY CAN DO
106*	WHEN KNOWS WHAT TO DO, DOESN'T LIKE BEING TOLD	SHOULD NOT DO MORE THAN HE/SHE IS PAID FOR
108	USUALLY GETS WORK DONE	USUALLY DOESN'T MIND WORKING
111	USUALLY CLEANS UP AFTER WORK	WOULD RATHER WORK THAN LIE AROUND
121	QUICKLY LEARNS TO DO HIS/HER JOB	IS FUN TO WORK WITH
144*	HAVING A STEADY JOB	GETTING HELP FROM OTHERS
146	HAVING FRIENDS	HAVING GOOD LUCK
154	GETTING HELP FROM OTHERS	HAVING GOOD LUCK
155	DEPENDING ON YOURSELF	GETTING THE BREAKS
156	BEING ABLE TO DO THINGS WELL	HAVING GOOD LUCK
167	DEFENDING ON YOURSELF	KEEPING OUT OF TROUBLE
170	THEY ARE LIKED BY MOST PEOPLE	THEY HAD GOOD LUCK
171	THEY WORKED HARD	THEY KNOW MORE HOW TO DO THINGS
172*	THEY FIND IT EASY TO DO THE RIGHT THING	THEY HAD GOOD LUCK
180	THEY FIND IT EASY TO DO THE RIGHT THING	THEY HAVE BEEN HELPED BY OTHER PEOPLE

* Also in female key