AN INVESTIGATION OF RETIREMENT SATISFACTION AS AN EXTENSION
OF THE THEORY OF WORK ADJUSTMENT

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of the Ohio State University

By

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* * * * *

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To My Parents
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PUBLICATIONS

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Major Field: Counseling Psychology
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CHAPTER I

INTRODUCTION

As the population of the United States has grown older, interest in healthy psychological adjustment to the aging process has increased. Research on aging has begun to dispel stereotypical myths concerning older adults. Examples of such stereotypes have included viewing all older adults as similar and assuming that a high percentage of older adults are institutionalized in nursing homes. Research on the aging process is an important endeavor. More research is needed investigating healthy adjustment to different types of transitions in later adult life.

One traditional marker event in the process of growing older is retirement from work. Interest in the adaptation of individuals to retirement has been one of the major focuses of research on later adult development. Atchley (1977) defined retired individuals as people who receive a retirement pension and work less than forty hours per week. This conceptualization of retirement has become the standard definition of retirement for most retirement studies.

Initially, retirement was thought to be a crisis of major proportions for many individuals. Withdrawing from the world of paid
employment was predicted to have grave consequences for most people. However, an overwhelming majority of the evidence generated from research on attitudes toward retirement has indicated that most people are satisfied with retirement and adapt to this status fairly easily (Atchley, 1980; Beck, 1982; Edinberg, 1985; Foner & Schwab, 1981; Huyck & Hoyer, 1982; Kimmel, Price & Walker, 1978; Streib & Schneider, 1971). Exceptions are those people who have a strong desire to return to work (Huyck & Hoyer, 1982).

One variable which has been found to be very important in adjustment to retirement is physical health (Atchley, 1980). The most consistent finding in the retirement literature is the positive relationship of physical health to retirement satisfaction and adjustment (Atchley, 1980; Beck, 1982; Botwinick, 1984; Edinberg, 1985; Kimmel, Price & Walker, 1978; Larsen, 1978; Hooker & Ventis, 1984). People who are physically healthier are happier. The consistency and strength of this relationship necessitates the inclusion of health as a variable in studies investigating retirement satisfaction and adjustment.

Similarly, income level and socioeconomic status have often been related to retirement satisfaction and adjustment (Atchley, 1980; Beck, 1982; Botwinick, 1984; Edinberg, 1985; Larsen, 1978). Atchley (1980) asserted that the decrease in income resulting from retirement was the largest adjustment which retired people had to make. Although increases in income level above fifteen thousand dollars a year seemed to have little impact on adjustment to retirement (Beck, 1982), some
minimum level of income did seem necessary to facilitate satisfaction with retirement. Consequently, income level and socioeconomic status are important variables to consider when investigating retirement satisfaction and adjustment.

While within the last fifteen years there has been a great deal of research on retirement, few attempts have been made to link this body of research to existing career development theories. Career development theorists such as Super (1980) and Dawis & Lofquist (1984) have incorporated the process of retirement into their theories, however, little research has been generated which has tested their propositions. Such research would be a welcome addition to the retirement literature, especially considering the results of many recent investigations which have done little more than confirm the importance of the relationships between physical health and income level to retirement satisfaction and adjustment. The linkage of the retirement literature with career development theories could potentially provide insightful results for both areas.
CHAPTER II

REVIEW OF THE LITERATURE

The Theory of Work Adjustment

Lofquist & Dawis's (1969) Theory of Work Adjustment proposes that work adjustment is a function of the degree of fit between the individual and the work environment. This degree of fit was labeled correspondence. This theory has been praised for the availability of instrumentation and the testability of its clear propositions (Osipow, 1983). In the Theory of Work Adjustment, both the individual and the work environment were described as having unique personalities. The structure of the work personality consisted of skill and ability requirements and reinforcers in the work environment. The structure of an individual's personality consisted of skills and abilities and needs. Consequently, work adjustment was a function of the correspondence between the ability and skill requirements and reinforcers in the work environment and individual skills, abilities, and needs.

Two outcomes of work adjustment, satisfaction and satisfactoriness, were proposed by Lofquist & Dawis (1969). Satisfaction was predicted to be a function of the degree of
correspondence between individual needs and reinforcers in the work environment. The higher the degree of correspondence between these two variables, the more satisfied an individual would be in a particular work setting. Lofquist & Dawis (1969) pointed out that various reinforcers would have different values to individuals with different needs. A reinforcer which may have a high value for one individual may have a much lower value for another individual. Satisfactoriness, also described as level of performance, was predicted to be a function of the correspondence between the skills and abilities an individual brings to a job and the skill and ability requirements of the work environment. It was predicted that the higher the degree of correspondence between these two facets of the individual and the work environment, the higher the level of satisfactoriness.

Betz (1969) found some support for this hypothesis in a sample of checkout cashiers, checker markers, and sales clerks in a department store. The Minnesota Importance Questionnaire (Weiss, Dawis, England & Lofquist, 1966), the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England & Lofquist, 1967), and the Minnesota Job Descriptive Index (Borgen, Weiss, Tinsley, Dawis & Lofquist, 1968) were administered to this sample. Betz (1969) found that correspondence between individuals' work needs and reinforcers in the environment was to job satisfaction for the combined sample and two of the three work groups in the sample.
Elizur & Tziner (1978) tested the hypothesis that job satisfaction for Israeli social workers would be related to the correspondence between vocational needs and occupational reinforcers. One sample of social workers was administered the Minnesota Job Descriptive Questionnaire to determine the pattern of occupational reinforcers in the profession. Another sample of social workers was administered the Minnesota Importance Questionnaire to measure vocational needs and the Minnesota Satisfaction Questionnaire to measure job satisfaction. Results of a canonical correlation supported the hypothesis that job satisfaction is a function of the correspondence between individual needs and occupational reinforcers.

Kuhlen (1963) investigated the relationship between needs, perceived opportunity for needs satisfaction in an occupation, and job satisfaction in a sample consisting primarily of teachers. As predicted, Kuhlen (1963) found that need for achievement and the perception of opportunity for achievement needs satisfaction were significantly related to job satisfaction for men in the sample. However, this relationship was not significant for women. Kuhlen (1963) believed that this latter result was a function of lower career saliency possessed by women teachers at that time. Few other significant results were found between the correspondence between job satisfaction and fifteen other pairs of needs and perceived opportunity to satisfy those needs. Kuhlen (1963) believed this could be explained within the context of career saliency and proposed that teachers may look for places other than the job to satisfy these
needs. One problem with this investigation was that it did not
directly measure occupational reinforcers. Consequently, this study
was not a direct test of Lofquist & Davis's (1969) hypothesis.

These investigations (Betz, 1969; Elizur & Tziner, 1977; Kuhlen,
1963) offer some support for Lofquist and Dawis's (1969) hypothesis
that job satisfaction is related to the degree of fit between
individuals' needs and occupational reinforcers. However, no work has
been done to extend this hypothesis to predict retirement
satisfaction. The relationship between retirement satisfaction and
the correspondence between individuals' needs and reinforcers in the
retirement environment remains unclear.

The Theory of Work Adjustment and Retirement Satisfaction

Lofquist & Dawis (1969) and Dawis & Lofquist (1984) have
suggested that the Theory of Work Adjustment can be extended to
explain adjustment to retirement. Dawis & Lofquist (1984) have
proposed that retirement satisfaction is a function of the
correspondence between individual needs and reinforcers in the
retirement environment. Dawis & Lofquist (1984) have suggested that
the categorization of retirement environments and the subsequent
fitting of these environments to personalities would be useful in
explaining satisfaction with retirement. Such a relationship could
have important implications for interventions with retired
individuals.
This study will investigate the applicability of Lofquist and Dawis's (1969) Theory of Work Adjustment in accounting for satisfaction in retirement. More specifically, this study will investigate the relationship of two personality variables, Protestant Ethic and affiliation, and their corresponding reinforcers in the retirement environment, perceived opportunities to be productive and perceived opportunities for affiliation, to retirement satisfaction. The relationship between job satisfaction and health and income level will also be investigated because both of these variables have been consistently found to be related to retirement satisfaction.

Protestant Ethic and Retirement

Mirels & Garrett (1971) considered the Protestant ethic to be a dispositional variable and developed a scale to measure this construct. Albee (1977) believed that two characteristics central to the Protestant ethic were devotion to hard work and self-denial of pleasure. People who internalize the Protestant work ethic were more likely to view work as a central source of satisfaction in their lives. Fillenbaum (1971) suggested that retirement may only affect people for whom work has occupied a more central place in their lives. For such individuals, the loss of the work role via retirement may be a more difficult transition to manage. These individuals may be less satisfied with retirement, especially if they fail to find a meaningful substitute for work activities.
Using Mirels & Garrett's (1971) Protestant Ethic scale, Hooker & Ventis (1984) found that this variable was negatively related to retirement satisfaction. However, this effect was moderated by the relationship between Protestant ethic and the self-perceived usefulness of retirement activities. Individuals with higher scores on the Protestant Ethic scale were more satisfied with retirement if they perceived their activities to be more useful than if they perceived these retirement activities to be less useful. Individuals with lower scores on the Protestant Ethic scale were more satisfied with retirement if they perceived their activities to be less useful than if they perceived their retirement activities to be useful. Such a pattern of findings is congruent with Dawis & Lofquist's (1984) prediction that retirement satisfaction will be related to correspondence between individuals' needs and the reinforcers in the retirement environment.

The prediction that individuals who internalize the Protestant ethic may have a more difficult time adjusting to retirement was supported by findings that individuals subscribing to this ethic had higher degrees of job satisfaction (Blood, 1969), were more likely to view commuting by train as part of the work day versus leisure time (Greenberg, 1978), and worked longer at repetitive tasks than individuals not subscribing to the Protestant ethic (Merrens & Garrett, 1975). These findings indicated that work and having the opportunity to be productive occupied a more central place in the value systems of individuals who internalized this ethic than
those who did not. Consequently, it was predicted that individuals subscribing to this ethic are more likely to be satisfied with retirement if they perceive their retirement environment as providing them with the opportunity to be useful and productive. Hooker & Ventis's (1984) findings were supportive of this prediction.

Social Support and Retirement Satisfaction

Social support is another variable important in moderating the relationship between retirement and retirement satisfaction. In a review of thirty years of research on subjective well-being of older adults, Larsen (1978) found that having a confidant is significantly related to greater life satisfaction. Medley (1980) found that satisfaction with one's family was positively related to life satisfaction in older adults. Atchley (1980) asserted that the family was significantly related to the satisfaction of retired individuals. Hoyt, Kaiser, Peters, & Babchuk (1980) found that a greater number of persons in the household was positively related to the mood tone of adults, sixty-five years and older. These results indicated that social support variables are an important component to consider when investigating the life satisfaction of older adults.

Many investigations which have looked at the relationship of social support to life satisfaction in older adults have used indirect quantitative measures of social support. Measures such as marital status, number of people in a household, and number of friends in a community are indirect measures of perceived social
support. A more direct measure of social support or affiliation reinforcers in the retirement environment must be developed to adequately test Dawis & Lofquist's (1984) prediction that retirement satisfaction is a function of the correspondence between personal needs and reinforcers in the retirement environment.

Few studies have investigated the relationship between affiliation and retirement satisfaction. Consequently, the investigation of the relationship of affiliation and satisfaction with retirement is exploratory. However, retirement satisfaction is predicted to be a function of the degree of fit between affiliation and affiliation reinforcers in the environment.

**The Present Investigation**

The purpose of this research was to investigate Dawis & Lofquists's (1984) hypothesis that retirement satisfaction is a function of the correspondence between the individual needs and reinforcers in the retirement environment. Two personality variables and their corresponding reinforcers in the retirement environment were selected for investigation. The two personality variables selected were the Protestant ethic (Mirels & Garrett, 1971) and affiliation (Jackson, 1974). The corresponding perceptions of productivity reinforcers and affiliation reinforcers in the retirement environment were also investigated. It was predicted that in accordance with Dawis & Lofquist's (1984) prediction, retirement satisfaction would be a function of the correspondence of these personality variables
with the measured reinforcers. Because of their consistent relationship with retirement satisfaction, the relationships of self-reported physical health and income level to retirement satisfaction were also investigated.
CHAPTER III

METHOD

Participants

One hundred and sixty-three individuals, one hundred women and sixty-two men, participated in this investigation. These volunteers were recruited at senior citizen centers, meetings of retirement organizations, retirement communities, and program sites of a county-wide lunch program for older adults (see Appendix A for a frequency distribution of participants by sites) in and near a major metropolitan area in Florida. The return rate of questionnaires by respondents was fifty-six per cent. All participants had worked a minimum of fifteen years in full-time employment, currently worked less than twenty-one hours in paid employment, and considered themselves to be retired. The average age of the participants was seventy-two years and they had worked an average of thirty-six years in full-time paid employment. Sixty-four percent of the sample had lived in Florida before they retired, while thirty-six per cent of the sample had moved to Florida after they retired. The estimated yearly mean income of the sample was seventeen thousand three hundred and fifty-three dollars (see Appendix B for a frequency distribution of
participants by income category).

Procedure

Participants were asked to complete a series of questionnaires. These questionnaires were administered and collected using the following procedures. Volunteers completed the questionnaires in group administrations, completed the questionnaires at home after receiving them and returned them to the data collection site at a later date, or completed the questionnaires at home after receiving them and returned them to the experimenter in postage-paid envelopes addressed to the experimenter.

Instruments

The instruments administered to the subjects included a demographic questionnaire, the Protestant Ethic scale (Mirels & Garrett, 1971), the Affiliation scale of the Personality Research Form—Form E (Jackson, 1974), a measure of affiliation reinforcers in the retirement environment, a measure of productivity reinforcers in the retirement environment, the Retirement Descriptive Index (Smith, Kendall, & Hulin, 1969), a revised version of Thompson & Streib's (1954) Satisfaction with Retirement scale, and a one-item life satisfaction measure.

The demographic questionnaire included a variety of items, including gender, age, education level, years since retirement, part-time work status, a three-item self-report measure of health, and
income information (see Appendix C). The average yearly income of each participant was calculated by using the midpoint of four of the five income ranges as estimates of this income. For the fifth income category, "greater than $40,000", fifty thousand dollars per year was used as the estimated yearly income figure. This estimated value was the income variable used in the analyses. The health index was derived by calculating the mean of the three health items included on the demographic questionnaire.

The Protestant Ethic scale (Mirels & Garrett, 1971) is a nineteen-item scale contructed to tap into Protestant ethic values. The Protestant Ethic was described as an internalized value orientation of individuals subscribing to hard work, achievement, and an ability to delay gratification (Hooker & Ventis, 1984). Mirels & Garrett (1971) found these items to have an internal consistency of .79 in a sample of two hundred and twenty-two college students. Hooker & Ventis (1984) found that the Protestant Ethic scale had an internal consistency of .71 in a sample of seventy-six retired individuals. This scale was found to have an internal consistency of .77 for individuals in the sample for this study. These nineteen items are rated by subjects on a six point scale, ranging from strongly agree to strongly disagree.

The Affiliation scale of the Personality Research Form - Form E (Jackson, 1974) is a sixteen-item scale, which asks individuals to respond true or false as to whether items are self-descriptive. High scorers on the affiliation scale enjoy being with people in general, accept people easily, and attempt to make friends and maintain old
relationships. Using the Spearman-Brown correction, the Affiliation scale was reported to have an internal consistency of .82 for a sample of eighty-three psychiatric patients and .86 for a sample of eighty-four college students (Jackson, 1974). An alpha coefficient of .80 was computed for the individuals in this sample.

The Retirement Descriptive Index (Smith et al., 1969) is a sixty-three item questionnaire which measures four domains of retirement satisfaction: Activities and Work (eighteen items), Financial Situation (eighteen items), Health (nine items), People You Associate With (eighteen items). Respondents are asked to describe the degree to which each of these items describes their current retirement situation. Respondents are instructed to respond "yes" if the item describes their current situation, "?" if they are not sure whether the item describes their current situation, and "no" if the item does not describe their current situation. In the revised scoring format, items are scored 3 if a positive response is given to a positively scored item or a negative response is given to a reverse scored item. One point is given for "?" responses. A response is scored 0 if it is a negative response to a positively scored item or a positive response to a reverse-scored item. Scale scores are computed by summing the scores on individual items for each scale. The four scales are somewhat correlated with one another. These correlations range form a correlation of .19 between the Finances and People You Associate With scales to .43 between the Health and Activities and Work scales (Smith et al., 1969).
A one-item life satisfaction measure was also administered to the participants (see Appendix D). This measures the degree to which participants are currently satisfied with their life.

The Satisfaction with Retirement scale (Thompson & Streib, 1958) is a four-item scale which measures the degree to which individuals anticipate missing work. Streib & Schneider (1971) revised this scale so that it could be administered to retired individuals. A three-point scale is used for each item (see Appendix E).

The Development of the Reinforcers Scales

The questionnaires for the affiliation reinforcers and productivity reinforcers were developed in the following fashion. Initially, the experimenter defined the two constructs to be measured. The definition of each construct is listed below:

Productivity reinforcers: The opportunities which individuals have to do things which they feel are useful, productive, and worthwhile. The opportunity provided by individuals' situations and environments to use their skills, knowledge, and talents.

Affiliation reinforcers: The opportunities which individuals have to spend time with other people. The opportunity provided by individuals' situations and environment to socialize with friends and to meet other people. The opportunities to spend a desired amount of time with family, friends, and other significant people.
Items, based on these constructs, were generated by two psychology interns, one psychologist, and the experimenter. Twenty-four items were generated for each construct.

This preliminary set of items was administered to seven psychologists and seven older adults, who were recruited as judges. They were asked to rate each item on a seven point scale, based on how well they felt each item measured its respective construct. Each judge was given a sheet defining each construct which was attached to the page preceding the twenty-four item scales (see Appendix F).

The seven older adult judges had a great deal of difficulty with this task. In spite of instructions which emphasized that they should rate the items with respect to how well each of these items measured the constructs and repeated reminders of the task at hand, these judges tended to rate the items with respect to how well each item applied to their current situation. Reverse-scored items created more difficulty for these judges. Most of these judges were not able to rate how well each of these items measured the construct. Rather, they rated the reverse-scored items as not measuring the construct. In summary, most of the older adult judges were unable to complete the prescribed rating tasks. Consequently, their ratings were not included in the preliminary selection of items.

The mean of the seven psychologists' ratings were calculated for each item (see Appendix F). Each item which received a mean rating of 4.0 or better was retained for administration to the pilot sample. Only one item from the affiliation reinforcers scale, "People around
me seem uninteresting to be with", with a mean rating of 3.29 was deleted from administration to the pilot sample.

The remaining twenty-three items on the affiliation reinforcers scale and the twenty-four items on the productivity reinforcers scale were administered to a sample of one hundred and fourteen retired individuals, sixty-nine women and forty-five men, from and near a major metropolitan area in Florida. These volunteers were recruited from senior citizen centers, meetings of retirement organizations, retirement communities, and a county-wide lunch program for older adults (see Appendix G for a frequency distribution by site). The respondents who participated in the piloting of these instruments were an average age of seventy-two years, had worked in full-time paid employment an average of thirty-six years, and received an average yearly income of sixteen thousand four hundred dollars (see Appendix H for a frequency distribution by income range). Forty-six percent of this sample had lived in Florida before they retired, while fifty-four per cent had moved to Florida after they retired.

Questionnaires were collected in three ways. Respondents completed questionnaires in group administrations, completed questionnaires at home and returned them to the data collection site, and completed questionnaires at home and returned them to the experimenter in a postage-paid envelope. The return rate of questionnaires was fifty-one per cent.
An alpha coefficient, a measure of internal consistency, was computed for each scale as a measure of reliability. The alpha coefficient for the productivity reinforcers scale was .947. Each item on the productivity reinforcers scale possessed an inter-item correlation of .35 or greater (see Appendix H). The alpha coefficient for the affiliation reinforcers scale was .916. Only one item, "In my situation there are too many things to do with other people," which possessed an inter-item correlation of .148, possessed an inter-item correlation of less than .35 (see Appendix I). This was the only item excluded from either scale for the sample used in this investigation. Consequently, the productivity reinforcers scale (see Appendix J) consisted of all twenty-four of the original items, while the affiliation reinforcers scale (see Appendix K) consisted of twenty-two of the original twenty-four items.

Each of these scales was administered to the one hundred and sixty-three respondents in the study. The alpha coefficient for this sample on the productivity reinforcers scale was .924. The alpha coefficient for the affiliation reinforcers scale was .943.

Predictions

Hypothesis 1: Protestant Ethic was predicted to be negatively related to the six measures of retirement satisfaction. Hooker & Ventis (1984) found such a negative relationship. Individuals scoring higher on the Protestant Ethic scale were predicted to experience less satisfaction in the retirement role as these individuals have lost
a critical productive role.

Hypothesis 2: The interaction term for the Protestant Ethic scale scores and the productivity reinforcers scale scores was predicted to be significant for the satisfaction measures. Congruent with Dawis & Lofquist's (1984) hypothesis, it was predicted, that retired individuals in retirement environments which matched their needs would be more satisfied than individuals in retirement environments which did not match their needs. Consequently, individuals who scored high on the Protestant Ethic scale and who perceived their environments as offering them opportunities to be productive and individuals who scored low on the Protestant Ethic and who did not perceive their environments as offering them the opportunity to be productive would be more satisfied than individuals with conflicting Protestant Ethic scores and perceptions in their retirement environments.

Hypothesis 3: Affiliation reinforcers were predicted to be significantly related to retirement satisfaction. Earlier investigations have shown that intimacy and social support were positively related to retirement satisfaction. Consequently, having such opportunities was hypothesized to be related to a high level of satisfaction with retirement.

Hypothesis 4: The interaction of affiliation and affiliation reinforcers in the environment was predicted to be significantly related to the satisfaction measures. It was predicted that high scorers on affiliation who perceived affiliation reinforcers in their
environment and low scorers on the affiliation scale who perceived fewer affiliation reinforcers were predicted to be most satisfied. People with conflicting scores on the personality scale and their corresponding reinforcers were predicted to be less satisfied with their retirement environment.

Hypothesis 5: Self-reported health was predicted to be significantly related to the satisfaction measures. The relationship of health to greater retirement satisfaction has been one of the most consistent findings in the literature.

Hypothesis 6: Income level was predicted to be significantly related to these satisfaction measures. The relationship between income level and satisfaction has been another consistent finding in the literature.
CHAPTER IV

RESULTS

Statistical Analyses

Hierarchical multiple regression analysis was used for this investigation. Consistent with this type of analysis, variables were entered into the regression equation in a predetermined order (Cohen & Cohen, 1975). Two sets of regression analyses were conducted for this investigation. The first set of analyses investigated the relationship of Protestant Ethic, productivity reinforcers in the environment, the interaction of these two variables, self-reported health, and income level to the satisfaction measures. The mean scores for each scale were used as the score for each variable. Using mean values is a better method of compensating for the effects of missing data than using the scale scores.

The variables were entered into the regression equation in the following order: Protestant Ethic, productivity reinforcers, and the interaction term of these two variables were entered as the first three variables into the regression equation because they were the primary variables of interest in this investigation. Because health has been the variable most consistently related to retirement
satisfaction, it was the fourth variable entered into the equation. Finally, income level was entered into the equation as it has been shown to also be often related to satisfaction with retirement. A separate regression equation was calculated for each of the dependent measures. The resulting regression equation was as follows:

\[ DV = b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + A \]

where

- \( DV \) = the dependent measures
- \( b_1 \) = Protestant Ethic
- \( b_2 \) = productivity reinforcers
- \( b_3 \) = the interaction term for Protestant Ethic and productivity reinforcers
- \( b_4 \) = self-reported health
- \( b_5 \) = income level
- \( A \) = a constant.

The second set of regression equations investigated the relationship of affiliation, affiliation reinforcers, and the interaction term for these two variables, self-reported health, and income level to the dependent measures. Again, because they were of primary interest, affiliation, affiliation reinforcers, and their interaction term were the first three variables entered into the equation. Self-reported health and level of income were the fourth and fifth variables entered into the equation for reasons discussed in the first set of analyses. The resulting regression equation was as
follows:

$$DV = b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + A$$

where

$DV$ = dependent measures

$b_1$ = affiliation

$b_2$ = affiliation reinforcers

$b_3$ = interaction term for affiliation and affiliation reinforcers

$b_4$ = self-reported health

$b_5$ = level of income

$A$ = a constant

In addition, the correlations between all variables included in this analysis were computed. This correlational matrix was included to describe the relationship of the variables to one another.

**Protestant Ethic and Productivity Reinforcers Model**

Protestant Ethic did not account for a significant proportion of the variance in the overall satisfaction measure. Productivity reinforcers accounted for 10% of the variance in overall satisfaction. The interaction term for these variables was not significant. Health accounted for an additional 3.4% of the variance in this variable while income accounted for an additional 7.7% of the variance in overall satisfaction (see Table 1).
\[ r^2 \approx 0.05 \]

<table>
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</tr>
<tr>
<td>2</td>
<td>B + P2</td>
<td></td>
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<tr>
<td>3</td>
<td>B + P3</td>
<td></td>
<td></td>
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<td>4</td>
<td>B + P4</td>
<td></td>
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<tr>
<td>5</td>
<td>B + P5</td>
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</tr>
</tbody>
</table>

Table 1: Hierarchical Multiple Regression Analysis of Protesting Behavior and Productivity on Retention and Overall Satisfaction.
Protestant Ethic was negatively related to satisfaction with retirement and accounted for 3.7% of the variance in this variable. Productivity reinforcers accounted for an additional 12.3% of the variance in this variable. Of the remaining variables entered into the regression equation, only income, which accounted for an additional 3.3% of the variance, accounted for a significant proportion of this variance (see Table 1).

Protestant Ethic did not account for a significant proportion of variance in the Work and Activities scale of the Retirement Descriptive Index (RDI). Productivity reinforcers accounted for an additional 18.9% of this variance. The interaction term for Protestant Ethic and productivity reinforcers accounted for an additional 2.4% of this variance, which was significant at $p < .06$ level. Once health was added to the regression equation, the amount of variance accounted for in Work and Activities became significant at $p < .05$. The variance accounted for by this interaction term remained significant at this level once income was added to the equation. Health, which accounted for an additional 8.3% of variance, was the only remaining variable accounting for a significant proportion of the variance (see Table 2).

Protestant Ethic did not account for a significant amount of the variance in the Income scale of the Retirement Descriptive Index. Productivity reinforcers accounted for an additional 10.9% of this variance. Health accounted for an additional 4.1% of the variance in the income measure, while income accounted for an additional 23.6% of
Table 2
Hierarchical Multiple Regression Analyses of Protestant Ethic and Productivity Reinforcers on the Retirement Descriptive Index Scales

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>Activities R²</th>
<th>R² change</th>
<th>Income R²</th>
<th>R² change</th>
<th>Health R²</th>
<th>R² change</th>
<th>People R²</th>
<th>R² change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Protestant Ethic</td>
<td>.008</td>
<td>.000</td>
<td>.028b</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Productivity Reinforcers</td>
<td>.197**</td>
<td>.189**</td>
<td>.109**</td>
<td>.109**</td>
<td>.148**</td>
<td>.120**</td>
<td>.143**</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>PE x Prod. Reinforcers</td>
<td>.221**</td>
<td>.024a</td>
<td>.111**</td>
<td>.000</td>
<td>.149**</td>
<td>.001</td>
<td>.163**</td>
<td>.020</td>
</tr>
<tr>
<td>4</td>
<td>Health</td>
<td>.304**</td>
<td>.083**</td>
<td>.152**</td>
<td>.041*</td>
<td>.520**</td>
<td>.371**</td>
<td>.224**</td>
<td>.061**</td>
</tr>
<tr>
<td>5</td>
<td>Income</td>
<td>.354**</td>
<td>.050</td>
<td>.388**</td>
<td>.236**</td>
<td>.525**</td>
<td>.005</td>
<td>.270**</td>
<td>.046**</td>
</tr>
</tbody>
</table>

* p<.05  ** p<.01

a This interaction term is initially significant at the p<.06 level. Once the health variable is added into the equation this term becomes significant at the p .05 level. This term remains significant at this level after income is added to the equation.

b This interaction term is initially significant at the p<.06 level. Once the productivity reinforcers variable is added to the equation, Protestant Work Ethic becomes significant at the p<.05 level. This variable remains significant at each additional step in the analyses.
this variance (see Table 2).

Protestant Ethic was negatively related to health at the p<.06 level and accounted for 2.8% of the variance in the Health scale of the RDI. After the productivity reinforcers variable was entered into the equation and at each additional step in the equation, the proportion of variance accounted for by Protestant Ethic is significant at the p<.05 level. Productivity reinforcers accounted for an additional 12.0% of the variance in the Health scale. The health variable accounted for an additional 37.1% of this variance (see Table 2).

Protestant Ethic did not account for a significant proportion of the variance in the People You Associate With scale of the RDI. Productivity reinforcers accounted for an additional 14.3% of this variance. Health accounted for an additional 6.2% of this variance, while income accounted for an additional 4.6% of this variance (see Table 2).

Affiliation and Affiliation Reinforcers Model

Affiliation did not account for a significant proportion of the variance in the overall satisfaction measure. Affiliation reinforcers accounted for an additional 11.2% of this variance. Health accounted for an additional 3.3% of the variance. Income accounted for an additional 6.7% of this variance (see Table 3).

Affiliation was positively related to the Satisfaction with Retirement scale and accounted for 3.2% of this variance. Affiliation
Table 3

Hierarchical Multiple Regression Analyses of Affiliation and Affiliation Reinforcers on Overall Satisfaction and Retirement Satisfaction

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>Overall Satisfaction</th>
<th>Retirement Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$R^2$</td>
<td>$R^2$ change</td>
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<td>1</td>
<td>Affiliation</td>
<td>.009</td>
<td>.032*</td>
</tr>
<tr>
<td>2</td>
<td>Affiliation reinforcers</td>
<td>.121**</td>
<td>.112**</td>
</tr>
<tr>
<td>3</td>
<td>Affiliation x aff. reinforcers</td>
<td>.123**</td>
<td>.002</td>
</tr>
<tr>
<td>4</td>
<td>Health</td>
<td>.156**</td>
<td>.033*</td>
</tr>
<tr>
<td>5</td>
<td>Income</td>
<td>.223**</td>
<td>.067**</td>
</tr>
</tbody>
</table>

* p<.05   ** p<.01
reinforcers accounted for an additional 10.3% of this variance. Income, which accounted for an additional 4.5% of this variance, was the only remaining variable which accounted for a significant proportion of this variance (see Table 3).

Affiliation was positively related to the Work and Activities scale of the RDI and accounted for 8.8% of the variance. Affiliation reinforcers accounted for an additional 16.0% of this variance. Health, which accounted for an additional 4.6% of this variance, was the only variable to account for an additional significant proportion of this variance (see Table 4).

Affiliation did not account for a significant proportion of the variance of the Finances scale on the RDI. Affiliation reinforcers accounted for 6.7% of this variance. Health accounted for an additional 3.4% of the variance in the Finances scale, while income accounted for an additional 23.8% of the variance in this scale (see Table 4).

Affiliation was positively related to the Health scale of the RDI and accounted for 7.8% of variance in this scale. Affiliation reinforcers accounted for an additional 6.9% of the variance in this scale. The health variable accounted for an additional 39.0% of the variance in this scale (see Table 4).

Affiliation was positively related to the People You Associate With Scale of the RDI and accounted for 4.8% of the variance in this scale. Affiliation reinforcers accounted for an additional 10.7% of the variance in this scale. Health accounted for an
Table 4

Hierarchical Multiple Regression Analyses of Affiliation and Affiliation Reinforcers on the Retirement Descriptive Index scales

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>Activities</th>
<th></th>
<th>Income</th>
<th></th>
<th>Health</th>
<th></th>
<th>People</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$R^2$</td>
<td>$\Delta R^2$</td>
<td>$R^2$</td>
<td>$\Delta R^2$</td>
<td>$R^2$</td>
<td>$\Delta R^2$</td>
<td>$R^2$</td>
<td>$\Delta R^2$</td>
</tr>
<tr>
<td>1</td>
<td>Affiliation</td>
<td>.088**</td>
<td>.016</td>
<td>.078**</td>
<td>.048*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Affiliation</td>
<td>.248**</td>
<td>.160**</td>
<td>.083**</td>
<td>.067**</td>
<td>.147**</td>
<td>.069**</td>
<td>.155**</td>
<td>.107**</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Affiliation x</td>
<td>.257**</td>
<td>.009</td>
<td>.083**</td>
<td>.000</td>
<td>.149**</td>
<td>.002</td>
<td>.167**</td>
<td>.008</td>
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<tr>
<td></td>
<td>Aff. reinforcers</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Health</td>
<td>.303**</td>
<td>.046**</td>
<td>.117**</td>
<td>.034*</td>
<td>.539**</td>
<td>.390**</td>
<td>.204**</td>
<td>.037**</td>
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<tr>
<td>5</td>
<td>Income</td>
<td>.343**</td>
<td>.040</td>
<td>.355**</td>
<td>.238**</td>
<td>.547**</td>
<td>.008</td>
<td>.275**</td>
<td>.071**</td>
</tr>
</tbody>
</table>

* p<.05  ** p<.01
additional 3.7% of the variance in the RDI Health scale, while income accounted for an additional 7.1% of the variance in this scale (see Table 4).

**Correlation Matrix**

A correlation matrix of all variables in the analyses was included to describe the individual relationships between variables (see Table 5). Perhaps most noticeable was the correlation of .62 between the affiliation reinforcers scale and the productivity reinforcers scale. The correlation between the Protestant Ethic and productivity reinforcers was -.09 and not significant. The correlation between affiliation and affiliation reinforcers was .38.

**Satisfaction Measures**

Most individuals reported a relatively high level of satisfaction with retirement. The average rating of overall satisfaction by the respondents in this study was 8.2 on a ten point scale. The average rating on the Satisfaction with Retirement scale was 2.44 on a three point scale. Similarly, most respondents reported a relatively high level of satisfaction on the RDI scales. The average ratings of satisfaction on the three point RDI scales were 2.43 on Work and Activities, 2.12 on Income, 2.0 on Health, and 2.25 on People You Associate With.
Table 5
Correlation Matrix of all Variables in Analyses

<table>
<thead>
<tr>
<th></th>
<th>Prot. Ethic</th>
<th>Prod. reinf</th>
<th>Affil reinf</th>
<th>Affil Health</th>
<th>Income</th>
<th>Overall Sat</th>
<th>Retire Sat</th>
<th>RDI Active</th>
<th>RDI Income</th>
<th>RDI Health</th>
<th>RDI People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prot. Ethic</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prod. reinf.</td>
<td>-0.09</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Affiliation</td>
<td>0.05</td>
<td>0.29**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Aff. reinf.</td>
<td>-0.11</td>
<td>0.62**</td>
<td>0.38**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Health</td>
<td>-0.18*</td>
<td>0.26**</td>
<td>0.09</td>
<td>0.27**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Income</td>
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<td>0.31**</td>
<td>0.11</td>
<td>0.32**</td>
<td>0.26**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall sat</td>
<td>-0.03</td>
<td>0.32**</td>
<td>0.09</td>
<td>0.33**</td>
<td>0.25**</td>
<td>0.34**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retire sat</td>
<td>-0.19**</td>
<td>0.36**</td>
<td>0.18*</td>
<td>0.34**</td>
<td>0.16*</td>
<td>0.33**</td>
<td>0.27**</td>
<td>1.00</td>
<td></td>
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</tr>
<tr>
<td>RDI Active</td>
<td>0.09</td>
<td>0.42**</td>
<td>0.30**</td>
<td>0.48**</td>
<td>0.32**</td>
<td>0.17</td>
<td>0.32**</td>
<td>0.19*</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RDI Income</td>
<td>0.00</td>
<td>0.33**</td>
<td>0.13</td>
<td>0.29**</td>
<td>0.26**</td>
<td>0.56**</td>
<td>0.47**</td>
<td>0.42**</td>
<td>0.38**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>RDI Health</td>
<td>-0.17</td>
<td>0.35**</td>
<td>0.28**</td>
<td>0.34**</td>
<td>0.70**</td>
<td>0.28**</td>
<td>0.31**</td>
<td>0.27**</td>
<td>0.40**</td>
<td>0.32**</td>
<td>1.00</td>
</tr>
<tr>
<td>RDI People</td>
<td>0.01</td>
<td>0.38**</td>
<td>0.21*</td>
<td>0.38**</td>
<td>0.79**</td>
<td>0.34**</td>
<td>0.21*</td>
<td>0.18</td>
<td>0.41**</td>
<td>0.39**</td>
<td>0.39**</td>
</tr>
</tbody>
</table>

* p<.05  ** p<.01
Summary

Productivity reinforcers and affiliation reinforcers contributed an additional significant proportion of the variance to each of the six satisfaction measures. Protestant Ethic was negatively related to the Satisfaction with Retirement scale and tended to be negatively related to the Health scale of the RDI. This negative relationship became significant when the other variables were added to the equation. Affiliation was positively related to the Satisfaction with Retirement scale and three of the four RDI scales, Work and Activities, Health, and People You Associate With.

None of the interaction terms were significant at the p<.05 level when initially entered into the regression equations. The Protestant Ethic and productivity reinforcers interaction term was significant at the p<.06 level for the Work and Activities Scale of the RDI. This term became significant at the p<.05 level after the health variable was added to the regression equation.

Health accounted for an additional significant proportion of the variance in the Overall Satisfaction measure and all four of the RDI scales. Health did not account for an additional significant proportion of the variance in the Satisfaction with Retirement scale.

Income accounted for an additional significant proportion of the variance in the Overall Satisfaction measure, the Satisfaction with Retirement scale, and two of the RDI scales, Income and People You Associate With. Income did not account for an additional significant
proportion of the variance in the Work and Activities and Health scales of the RDI.
CHAPTER V
DISCUSSION

Protestant Ethic and Retirement Satisfaction

Protestant Ethic was negatively related to the Satisfaction with Retirement scale (Streib & Schneider, 1971). This scale measured the degree to which individuals adjust to being away from work. Finding that retired individuals who scored more highly on the Protestant Ethic scale miss working more than individuals with lower scores on this scale, supported the prediction that retirement may be a more difficult adjustment for individuals subscribing to the Protestant Ethic because working has occupied a more critical role in their life than those individuals who do not subscribe as strongly to this ethic. This result was consistent with Hooker & Ventis's (1984) results which indicated that the Protestant Ethic was negatively related to retirement satisfaction.

Protestant Ethic tended to be related to poorer self-reported health. While this relationship was not significant at the p < .05 level, but rather the p < .06 level, at a minimum this relationship warrants further investigation. In this instance, such consideration was further merited by the fact that Protestant Ethic became
significant at the p<.05 level at the second step of the hierarchical multiple regression equation. Cascio & Zedeck (1983) argued that strictly adhering to .05 alpha levels ignored looking at effects which may exist and exhibited unwarranted rigidity on the part of researchers. Cascio & Zedeck (1983) suggested that researchers adopt a more rational approach in selecting alpha levels, taking into consideration the manner in which different alpha level values impact the power of research designs.

The relationship of the interaction term for Protestant Ethic and productivity reinforcers to satisfaction with activities was significant at the p<.06 level. Again, Cascio & Zedeck (1983) maintained that it was important not to routinely disregard such relationships. In light of this term becoming significant at the next step of the regression equation and Hooker & Ventis's (1984) findings, which indicated the interaction term for Protestant Work Ethic and a usefulness rating of daily activities was positively related to retirement satisfaction, further investigation of this relationship is recommended.

Protestant Ethic was not related to overall satisfaction, satisfaction with income, or satisfaction with people. In summary, Protestant Ethic seemed most closely linked to poor adjustment to being away from the world of work. Further investigation of its relationship to health and satisfaction with activities is suggested.
Affiliation and Retirement Satisfaction

Affiliation was positively related to the Satisfaction with Retirement scale (Streib & Schneider, 1971), satisfaction with people, satisfaction with health, and satisfaction with activities. No relationship between affiliation and overall satisfaction or satisfaction with income was found. While no predictions were initially made regarding the relationship between affiliation and retirement satisfaction, retired individuals who gravitated toward others, made new friends, maintained old relationships, and sought out group activities in which to participate were more satisfied with certain aspects of retirement than retired individuals who scored lower on affiliation. One potential explanation for this finding was that retired individuals with higher affiliation scores were more adept at developing and maintaining a social support system than people with lower affiliation scores. Because social support has been found to be positively related to retirement satisfaction, programs designed to develop the social skills of older adults may be helpful in improving their quality of life. Encouraging retired individuals to seek out group-oriented activities may also improve their satisfaction level.

The Theory of Work Adjustment and the Satisfaction Measures

Limited support was provided for Dawis & Lofquist's (1984) Theory of Work Adjustment. With the exception of the previously mentioned relationship between the interaction term for Protestant Work Ethic
and productivity reinforcers and satisfaction with activities, none of
the interaction terms approached significance in the amount of
variance accounted for in the satisfaction measures. On the surface,
such results indicated that the Theory of Work Adjustment, which
predicts that satisfaction is a function of the degree of fit between
individual needs and reinforcers in the environment, has limited value
in accounting for retirement satisfaction. However, before drawing
such a conclusion, it must be emphasized that only two needs and their
corresponding reinforcers were investigated in this study. Lofquist &
Dawis's (1969) Theory of Work Adjustment provided instrumentation for
twenty-one pairs of needs and their corresponding reinforcers. A more
comprehensive test of this theory, including a broader range of needs
and corresponding reinforcers to adequately assess the value of
extending the theory to account for retirement satisfaction, is
needed.

Before discounting this theory, it must also be emphasized that
both the affiliation and productivity reinforcer scales were strongly
related to each of the satisfaction measures. Because these two
reinforcer scales were important for most people, it was less likely
that their interaction terms would be significantly related to the
satisfaction measures, than if the reinforcers were valued differently
by individuals with different needs. Consequently, this investigation
is best viewed as heuristic seminal in nature with respect to
investigating the applicability of the Theory of Work Adjustment in
accounting for retirement satisfaction. Intuitively, the theory makes
sense. However, it must stand the test of empirical validation.

Productivity and Affiliation Reinforcers and Retirement Satisfaction

One of the most consistent findings in this investigation was that respondents' perceptions of the affiliation and productivity reinforcers in their environment were significantly related to each of the satisfaction measures. These findings were consistent with variables which other researchers have found to be related to retirement satisfaction. Palmore, Burchett, Fillenbaum, George, and Wallman's (1985) model of retirement satisfaction which maintained that "social activities and relationships are viewed as the most proximate predictors of subjective well-being, p.53". As previously mentioned, social support, measured in various ways, has been found to be significantly related to increased satisfaction with retirement (Atchley, 1980; Hoyt et al., 1980; Larsen, 1978; Medley, 1980). Hooker & Ventis (1984) found that higher usefulness ratings of daily activities resulted in greater satisfaction with retirement.

Because all satisfaction measures were related to these perceived reinforcers, it is suggested that satisfaction with retirement may be increased by increasing the degree to which retired individuals perceive these reinforcers available within their environments. Two potential interventions would appear to be fruitful avenues to bring about such change. First, changes in the retirement environment could be implemented, i.e. the development of activities which retired individuals perceived as being useful or resulted in these individuals
feeling more productive or physically changing the environment in a manner which is more conducive to social interaction. Such a strategy is consistent with Lawton's (1980) recommendations of ways in which retirement environments can be better designed to fit the needs of retired individuals. Second, interventions could focus on the individual. One possible route is to alter people's attitudes with respect to how they perceive their situations. Group interventions, which emphasize the opportunities which their environments do provide may increase their awareness level, thereby altering their perception of the environment. Perhaps a more promising intervention with individuals would be to develop skill building programs to increase a persons' sense of self-efficacy, so they are better able to seek out and develop reinforcers within the environment. Bandura (1977) suggested that increasing an individuals' self-efficacy will impact their behaviors and attitudes. Consequently, providing retired individuals the opportunity to learn new skills or change their current attitudes may alter their views of their environment in a positive direction, thereby increasing their level of satisfaction with their retirement environments.

Health and Retirement Satisfaction

Consistent with the findings of previous researchers (Beck, 1982; Kimmel, Price & Walker, 1978; Larsen, 1978; Hooker & Ventis, 1984), health was found to be positively related to retirement satisfaction. Health was positively related to overall satisfaction and each of the
four RDI scales. One potential reason for this relationship is that people who were in better health were more likely to have increased mobility and be better able to become involved in outside activities and getting out to meet people. In addition, it seems natural that people who felt better physically, felt better in general about their situation. The results of this study supported these contentions.

**Income and Retirement Satisfaction**

Income was found to be significantly related to four of the satisfaction measures: overall satisfaction, satisfaction with retirement, satisfaction with income, and satisfaction with people. Again, this result was consistent with the results of previous researchers (Atchley, 1980; Beck, 1982; Larsen, 1978) who found income to be positively related to retirement satisfaction. Lacking economic resources potentially restricted the ability of retired individuals to do the things they might have been able to do if they had had adequate resources. Beck (1982) emphasized the importance of possessing a minimum amount of income in retirement to facilitate retirement satisfaction.

**Limitations of the Study**

Again, this study may not have provided an adequate test of the Theory of Work Adjustment as only the relationship between two pairs of needs and corresponding reinforcers and retirement satisfaction was investigated. A greater range of needs and reinforcers would
provide a more comprehensive test of the theory. Lofquist & Dawis (1969) included twenty-one pairs of needs and reinforcers in their instrumentation.

Only self-report data were collected in this study. This type of data is subjective to the effects of individuals providing answers which they believe are socially desirable. Most individuals in this study reported a high level of satisfaction on each of the satisfaction measures. Future studies may want to corroborate the validity of self-reports with reports from significant others. As previously mentioned, mortality data in longitudinal studies may provide an alternative measure of retirement satisfaction and health.

The length of the questionnaire packet was a limitation. The questionnaire packet required about forty-five to fifty minutes to complete. Many of the respondents who completed the form in group administrations began to fatigue during this period. In addition, approximately one fourth of the sample did not satisfactorily complete the Retirement Descriptive Index. Many left this questionnaire blank. In part, this may have been due to the reduced size of this questionnaire. In part, this may have resulted from respondents' fatigue and a reluctance to complete the task. While a power analysis (Cohen & Cohen, 1975) indicated that the power for the multiple regression analyses exceeded .90, it would have been desirable to have had a higher proportion of these questionnaires completed.
Future Research

More research investigating the extension of the Theory of Work Adjustment to account for retirement satisfaction is needed. Including a broader range of needs and reinforcers is suggested to provide a more comprehensive test of this theory. Such research would be more consistent with the spirit of Lofquist & Dawis's (1969) theory. The relationship of Protestant Ethic and productivity reinforcers as they relate to retirement satisfaction should be included in this research, as findings in this investigation and by Hooker & Ventis (1984) suggest the degree of fit between these variables may impact retirement satisfaction.

Further research investigating the manner in which individuals' perceptions of reinforcers in the environment are related to more objective measures of the environment is recommended. In this investigation, a phenomenological measurement of reinforcers in the environment was used. Lawton (1980) emphasized the importance of objective assessment of environments for older adults. Investigating the manner in which both phenomenological and more objective assessments of retirement environments are interrelated to one another and related to retirement satisfaction is recommended.

Because of the high correlation, .62, between the productivity reinforcer and affiliation scales, further investigation of the relationship between these variables is suggested. While intuitively it seems as though these variables would represent two different constructs, it may be that these two scales represent one interrelated
construct to retired individuals. Such a finding could have important implications for programmatic interventions and research with retired individuals. As the productivity and affiliation reinforcer scales evolve, it will be important to monitor the relationship between the scales.
CHAPTER VI

SUMMARY

This investigation represented an attempt to extend one of the prominent career development theories, the Theory of Work Adjustment (Dawis & Lofquist, 1984), to account for satisfaction with retirement. Dawis & Lofquist (1984) predicted that retirement satisfaction would be a function of the correspondence between individuals' needs and reinforcers in individuals' retirement environments. The relationships of two sets of personality variables, affiliation (Jackson, 1974) and Protestant Ethic (Mirels & Garrett, 1971), and their corresponding reinforcers, affiliation reinforcers and productivity reinforcers, to six measures of satisfaction were investigated. In addition, the relationships of self-reported physical health and income to the satisfaction measures were investigated as these two variables have been consistently shown to be related to retirement satisfaction in the literature.

One hundred and sixty-three retired individuals living in and near a major metropolitan area in Florida participated as volunteers in this investigation. These participants were recruited at senior
citizen centers, meetings of retirement organizations, retirement communities, and program sites for a county-wide lunch program for older adults. These individuals were asked to complete a series of questionnaires: a demographic questionnaire; the Protestant Ethic scale (Mirels & Garrett, 1971); the Affiliation scale of the Personality Research Form – Form E (Jackson, 1974); measures of affiliation reinforcers and productivity reinforcers which were both developed in conjunction with this investigation; the Retirement Descriptive Index (Smith, et al., 1969); a revised version of Thompson & Streib's (1954) Satisfaction with Retirement Scale (Streib & Schneider, 1971); a one-item life satisfaction measure.

It was predicted that Protestant Ethic would be negatively related to retirement satisfaction and that the affiliation reinforcers variable would be positively related to retirement satisfaction. In support of the Theory of Work Adjustment (Dawis & Lofquist, 1984), it was predicted retirement satisfaction would be a function of the degree of fit between affiliation and Protestant Ethic and their corresponding reinforcers, affiliation reinforcers and productivity reinforcers. In addition, self-reported health and income were predicted to be positively related to retirement satisfaction.

Two sets of hierarchical multiple regression analyses (Cohen & Cohen, 1975) were used in this investigation. The first set of analyses investigated the relationship of the six satisfaction measures to five variables entered into the regression equation in the
following order: Protestant Ethic; productivity reinforcers; the interaction term for Protestant Ethic and productivity reinforcers; self-reported health; income. The second set of analyses investigated the relationship of the six satisfaction measures to five variables entered into the regression equation in the following order: affiliation; affiliation reinforcers; the interaction term for affiliation and affiliation reinforcers; self-reported health; income.

Limited support was found for extending Dawis & Lofquist's (1984) Theory of Work Adjustment to account for retirement satisfaction. Only one of the interaction terms approached significance. The relationship between the interaction term for Protestant Ethic and productivity reinforcers and satisfaction with activities was significant at the p<.06 level when initially entered into the regression equation. This interaction term became significant at the p<.05 level at the next two steps of the hierarchical multiple regression model.

Protestant Ethic was negatively related to adjustment from being away from the world of work, negatively related to health at the p<.06 level, and not significantly related to the remaining four satisfaction measures. These findings provided some support for Hooker & Ventis's (1984) findings. Further investigation of the relationship between Protestant Ethic and retirement satisfaction was suggested.

Affiliation was positively related to the Satisfaction with Retirement scale (Streib & Schneider, 1971) and three of the RDI
scales, Current Work and Activities, Health, and People You Associate With. It was hypothesized that retired individuals with high affiliation scores may have been more skilled at developing and maintaining a social support system than people with lower affiliation scores. Because social support has been found to be positively related to retirement satisfaction, it was suggested that programs designed to develop the social skills of older adults might be helpful in improving their level of satisfaction with their retirement satisfaction.

The affiliation reinforcers and productivity reinforcer scales were significantly related to each of the six satisfaction measures. These findings were consistent with variables which other researchers have found to be positively related to retirement satisfaction. Palmore et al. (1985) maintained that "social activities and relationships are viewed as the most proximate predictors of subjective well-being, p. 53." Social support, measured in various ways, has been found to be significantly related to retirement satisfaction (Atchley, 1980; Hoyt et al., 1980; Larsen, 1978; Medley, 1980). Hooker & Ventis (1984) found that higher usefulness ratings of daily activities were related to greater satisfaction with retirement.

Consistent with previous research findings, both self-reported health and income were related to retirement satisfaction. Self-reported health was related to overall satisfaction and each of the RDI satisfaction scales. Income was related to overall satisfaction, adjustment to being away from the world of work,
satisfaction with income, and satisfaction with people. These findings supported the importance of health and income in facilitating retirement satisfaction.

More research investigating the extension of the Theory of Work Adjustment to account for retirement satisfaction was recommended. Including a broader range of needs and reinforcers, which would provide a more comprehensive test of the theory, was suggested. Further investigating retirement satisfaction as it relates to Protestant Ethic and productivity reinforcers was also recommended. While extending the Theory of Work Adjustment (Dawis & Lofquist, 1984) to account for retirement satisfaction was discussed as being intuitively attractive, it was emphasized that the theory must be empirically validated.
APPENDIX A

FREQUENCY DISTRIBUTION BY SITE OF RESPONDENTS IN THE INVESTIGATION
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<th>Site</th>
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<th>Percentage of Respondents</th>
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APPENDIX B

FREQUENCY DISTRIBUTION BY INCOME LEVEL OF RESPONDENTS IN THE INVESTIGATION
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APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE
Letter of Introduction

We are conducting research investigating the retirement process. This study is being conducted as a doctoral dissertation project at the Ohio State University. Studies such as this can be important in increasing our understanding about how retirement affects people. Because so many people are retired and are planning retirement this is an important social issue. Your responses can help younger people learn about issues to help them plan their retirement better.

You are the expert on retirement! In order to gain a better understanding of retirement, we believe it is important to ask people who are currently retired about their experiences. Your participation is greatly appreciated as it is only with the help of people such as yourself that we can gain a better understanding of the retirement process.

We hope that you agree with us that research on retirement is important and agree to participate in this study. We are requesting that you complete the enclosed questionnaires and return them within two weeks. Thank you for your consideration.

Sincerely,

[Signature]
Stephen A. Gravenkemper, M.A.

[Signature]
Samuel H. Chi, Ph.D.
This information is confidential and will be used only for research purposes. You will remain anonymous and this information will not be associated with you.

CONFIDENTIAL

Following is a list of questions about yourself. These answers will be kept confidential and will not be identified with you.

1. ______ Female ______ Male

2. When were you born? _____ Month _____ Day _____ Year

3. Education: How far did you go in school?
   ______ 1-5 grade
   ______ 6-8 grade
   ______ some high school
   ______ high school graduate
   ______ some college
   ______ college graduate
   ______ some graduate or professional school
   ______ Master's degree
   ______ Ph.D., M.D., Ed.D., J.S.D. or similar degree

4. Do you consider yourself retired? _____ Yes _____ No

5. How long ago did you retire? _____ Years _____ Months

6. Are you working now (paid employment)? _____ Yes _____ No

If you answered "Yes" to the above question, how many hours a week do you work on the average? _____ Hours

7. Are you receiving a retirement pension? _____ Yes _____ No

8. How many years did you work full time?
   ______ Years

9. Describe the type of work you did during most of your working life

   _____________________________________________________________
   _____________________________________________________________

   How long did you do this type of work? _____ Years

10. Briefly describe other types of work you did and the number of years you did this work in the space provided below.

   _____________________________________________________________ Work _____ Years
   _____________________________________________________________ Work _____ Years
   _____________________________________________________________ Work _____ Years
   _____________________________________________________________ Work _____ Years
   _____________________________________________________________ Work _____ Years
   _____________________________________________________________ Work _____ Years
   _____________________________________________________________ Work _____ Years
   _____________________________________________________________ Work _____ Years
   _____________________________________________________________ Work _____ Years
11. I retired because (check all that apply below)

   ____ I wanted to stop working.
   ____ company policy forced me to do so.
   ____ of poor health.
   ____ other (Please explain ____________________________).

12. Before I retired (check all that apply below).

   ____ I was looking forward to retiring.
   ____ I was not looking forward to retiring.
   ____ I had mixed feelings about how I felt about retiring.

13. Marital status (Check one):

   ____ never married
   ____ divorced (years since divorce _____)
   ____ separated
   ____ widow/widower (years widowed _____)
   ____ widowed and remarried
   ____ married
   ____ other (Please explain ____________________________)

14. Living situation:

   ____ I own a house.
   ____ I own a mobile home.
   ____ I own a condominium.
   ____ I rent a house, apartment, condominium, or mobile home.
   ____ I live in a nursing home.
   ____ I live in a retirement home.
   ____ Other (Please explain ____________________________).

15. I live

   ____ alone
   ____ with my spouse
   ____ with my child/children
   ____ with other relatives
   ____ with friends
   ____ with a companion
   ____ other (Please explain ____________________________).

16. How long have you lived in Florida?

   ____ years _____ months

17. Did you move to Florida before or after you retired?

   ____ Before
   ____ After
   ____ I have always lived in Florida
   ____ Other (Please explain ____________________________).
18. How much income do you receive from all sources each year (i.e. retirement pensions, social security, interest payments, annuities, part-time work, and other sources)? If you are married, please include your spouse's income.

   $0 - $5000
   $5000 - $15,000
   $15,000 - $25,000
   $25,000 - $40,000
   greater than $40,000

19. Since I have retired, my income has

   decreased a great deal
   decreased some
   remained about the same
   increased some
   increased a great deal

20. Since I have retired, my income has

   decreased 40% or more
   decreased 10% - 40%
   remained about the same
   increased 10% - 40%
   increased 40% or more

21. A person in my situation needs about how much money to get by?

   $________________________ per year

22. Do your annuities, bonds, investments, savings, and property (eg. net worth) amount to

   less than $10,000
   $10,000 - $30,000
   $30,000 - $50,000
   $50,000 - $100,000
   greater than $100,000

23. Health: How would you rate your health at this time?

   Very poor
   Poor
   Fair
   Good
   Excellent
24. In the past three years, my health

___ has gotten much worse
___ has gotten worse
___ has stayed about the same
___ has gotten better
___ has gotten much better

25. Compared to other people my age

___ my health is much poorer than other people's health
___ my health is poorer than other people's health
___ I am just as healthy as other people
___ I am healthier than other people
___ I am much healthier than other people my age

26. Race:

___ Asian
___ Black
___ Hispanic
___ White
___ Other (Please list ____________________________).

27. The thing I like most about retirement is

________________________________________________________________________
________________________________________________________________________

28. The thing I dislike most about retirement is

________________________________________________________________________
________________________________________________________________________
APPENDIX D

ONE-ITEM LIFE SATISFACTION QUESTIONNAIRE
2. Think about your current situation. Use the scale below to show how satisfied you are with your situation. Circle the number on the scale which shows how satisfied you are. Think of "10" as being as satisfied as you could possibly be and "1" as being as unsatisfied as you could possibly be.

1—2—3—4—5—6—7—8—9—10
APPENDIX E

RATING SHEETS FOR PRODUCTIVITY AND AFFILIATION REINFORCERS SCALES
Below is a definition of a concept. Please read this definition carefully.

Productivity Reinforcers: The opportunities which individuals have to do things which they feel are useful, productive, and worthwhile. The opportunity provided by an individual's situation and environment to use their skills, knowledge, and talents.

On the following page is a list of statements. Please rate how much you agree or disagree that each of these statements describes or relates to the concept of productivity reinforcers.
Below is a list of statements. Please answer each statement using the numbers below. Rate each statement on the basis of how much you agree or disagree that it measures the concept described on the previous page. Please read each item carefully. Whether a statement is worded positively or negatively is not important, what is important is how well each statement relates to or describes the concept on the previous page.


1. I have the opportunity to use skills which I have developed.

2. People in my situation have many things to do which make them feel productive.

3. People in my situation make use of their individual abilities.

4. If and when I want to, I can use my occupational skills.

5. People in my situation do not feel useful because they cannot use the skills which they have learned.

6. I feel my productivity is limited because of a lack of opportunity.

7. People in my situation find great satisfaction in activities which are available to them.

8. The talents which people in my situation have developed are useless.

9. People in my situation find many interesting things to do which allow them to use their knowledge, skills, and abilities.

10. People in my situation never seem to have enough time to do what they want to do.

11. The activities available to people in my situation are not worthwhile.

12. In my situation, the skills and abilities which I have developed do not seem to be as valuable as they used to be.

13. People in my situation do not have many chances to do things that make them feel useful.

14. People in my situation get a feeling of accomplishment.

15. If I wanted to, I could use the work skills that I developed.

16. My skills and abilities are being wasted in my current situation.
1. Strongly Disagree
2. Disagree
3. Slightly Disagree
4. Neither Agree or Disagree
5. Slightly Agree
6. Agree
7. Strongly Agree

17. Because they cannot use the things they learned, people in my situation feel useless.

18. The talents of people in my situation are wasted.

19. I feel I am able to use knowledge I have gained in my current situation.

20. People in my situation feel very useful in the activities in which they participate.

21. Because of technological progress, people in my situation feel useless these days.

22. There is no need for my abilities now.

23. There are many worthwhile things for me to do which make me feel useful.

24. I find great pleasure in activities which are available to me.
Below is a definition of a concept. Please read this definition carefully.

**Affiliation Reinforcers:** The opportunities which individuals have to spend time with other people. The opportunity provided by an individual's situation and environment to socialize with friends and to meet other people. The opportunity to spend a desired amount of time with family, friends, and other significant people.

On the following page is a list of statements. Please rate how much you agree or disagree that each of these statements describes or relates to the concept of affiliation reinforcers.
Below is a list of statements. Please answer each statement using the numbers below. Rate each statement on the basis of how much you agree or disagree that it measures the concept described on the previous page. Please read each item carefully. Whether a statement is worded positively or negatively is not important, what is important is how well each statement relates to or describes the concept on the previous page.

1. Strongly Disagree  
2. Disagree  
3. Slightly Disagree  
4. Neither Agree or Disagree  
5. Slightly Agree  
6. Agree  
7. Strongly Agree

1. People in my situation have people who are easy to make friends with.  
2. I have many chances to spend time with people I like.  
3. Because it is so hard to meet people in my situation, it is just not worth the time trying to make friends.  
4. In my situation there does not appear to be people who are approachable.  
5. People in my situation have a hard time meeting people.  
6. I have many opportunities to spend time with people who are important to me.  
7. In my living situation I seldom have contact with other people.  
8. People in my situation have many activities in which they socialize with other people.  
9. People in my situation never have a chance to meet new people.  
10. I wish there was more of an opportunity to meet new people.  
11. People in my situation spend all of their time alone.  
12. I have many friends who I can contact each week if I want to contact them.  
13. People in my situation have few chances to spend time with people who they feel close to.  
14. People in my situation always feel isolated from other people.  
15. People in my situation have the opportunity to meet other people if they really want to meet people.  
16. In my situation there are very few activities to participate in with other people.  
17. People in my situation can spend as much time with other people as they want to spend with them.
1. Strongly Disagree
2. Disagree
3. Slightly Agree
4. Neither Agree or Disagree
5. Slightly Agree
6. Agree
7. Strongly Agree

18. I have many opportunities to spend time with people who are special to me.

19. People in my situation have few chances to spend time with other people.

20. People in my situation have many friends to spend time with.

21. I wish I had more chances to make new friends.

22. In my situation there are too many things to do with other people.

23. People in my situation rarely have the chance to spend time with more than one or two other people.

24. People around me seem uninteresting to be with.
APPENDIX F

MEAN RATER JUDGMENTS OF THE ORIGINAL PRODUCTIVITY AND AFFILIATION REINFORCERS SCALES
Mean Rater Judgments of the Original Productivity Reinforcer Items

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<tr>
<th>Item</th>
<th>Mean Rating</th>
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### Mean Rater Judgments of the Original Affiliation Reinforcer Items

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APPENDIX G

FREQUENCY DISTRIBUTION BY SITE OF RESPONDENTS IN THE PILOTING OF THE REINFORCER SCALES
Frequency of Respondents by Site in the Pilot Study Developing the Affiliation and Productivity Reinforcers Scales

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<th>Percentage of Respondents</th>
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APPENDIX H

FREQUENCY DISTRIBUTION BY INCOME OF RESPONDENTS IN THE PILOTING OF THE REINFORCER SCALES
<table>
<thead>
<tr>
<th>Income Category</th>
<th>Number of Respondents</th>
<th>Percent of Respondents</th>
<th>Cumulative % of Respondents</th>
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</thead>
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<tr>
<td>$0 - $5000</td>
<td>13</td>
<td>13.0</td>
<td>13.0</td>
</tr>
<tr>
<td>$5000 - $15,000</td>
<td>47</td>
<td>47.0</td>
<td>60.0</td>
</tr>
<tr>
<td>$15,000 - $25,000</td>
<td>20</td>
<td>20.0</td>
<td>80.0</td>
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<tr>
<td>$25,000 - $40,000</td>
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<td>15.0</td>
<td>95.0</td>
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<td>greater than $40,000</td>
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<td>100.0</td>
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</table>
APPENDIX I

RELIABILITY ANALYSIS OF PILOT ITEMS FOR THE PRODUCTIVITY REINFORCERS SCALE
Reliability Analysis of Pilot Items for the Productivity Reinforcers Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected Item - Total Correlation</th>
<th>Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.630</td>
<td>.945</td>
</tr>
<tr>
<td>2</td>
<td>.755</td>
<td>.944</td>
</tr>
<tr>
<td>3</td>
<td>.468</td>
<td>.947</td>
</tr>
<tr>
<td>4</td>
<td>.607</td>
<td>.946</td>
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<td>.944</td>
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<tr>
<td>6</td>
<td>.688</td>
<td>.945</td>
</tr>
<tr>
<td>7</td>
<td>.633</td>
<td>.946</td>
</tr>
<tr>
<td>8</td>
<td>.681</td>
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<td>.672</td>
<td>.945</td>
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<td>10</td>
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<td>11</td>
<td>.656</td>
<td>.945</td>
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<td>.946</td>
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<td>13</td>
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<td>.945</td>
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<tr>
<td>14</td>
<td>.677</td>
<td>.945</td>
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<tr>
<td>15</td>
<td>.597</td>
<td>.946</td>
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<td>.945</td>
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<td>17</td>
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<td>.944</td>
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<tr>
<td>18</td>
<td>.715</td>
<td>.944</td>
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<td>.665</td>
<td>.945</td>
</tr>
<tr>
<td>20</td>
<td>.537</td>
<td>.946</td>
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<td>.623</td>
<td>.946</td>
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<tr>
<td>22</td>
<td>.690</td>
<td>.945</td>
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<td>23</td>
<td>.707</td>
<td>.944</td>
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<tr>
<td>24</td>
<td>.624</td>
<td>.945</td>
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Alpha coefficient = .947
APPENDIX J

RELIABILITY ANALYSIS OF PILOT ITEMS FOR THE AFFILIATION REINFORCERS SCALE
### Reliability Analysis for Pilot Items of the Affiliation Reinforcers Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Corrected Item-Total Correlation</th>
<th>Alpha if Item Deleted</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>.551</td>
<td>.913</td>
</tr>
<tr>
<td>2</td>
<td>.552</td>
<td>.913</td>
</tr>
<tr>
<td>3</td>
<td>.558</td>
<td>.913</td>
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<tr>
<td>4</td>
<td>.535</td>
<td>.913</td>
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<tr>
<td>5</td>
<td>.551</td>
<td>.913</td>
</tr>
<tr>
<td>6</td>
<td>.693</td>
<td>.910</td>
</tr>
<tr>
<td>7</td>
<td>.542</td>
<td>.913</td>
</tr>
<tr>
<td>8</td>
<td>.563</td>
<td>.912</td>
</tr>
<tr>
<td>9</td>
<td>.600</td>
<td>.912</td>
</tr>
<tr>
<td>10</td>
<td>.400</td>
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</tr>
<tr>
<td>11</td>
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<td>.916</td>
</tr>
<tr>
<td>12</td>
<td>.558</td>
<td>.912</td>
</tr>
<tr>
<td>13</td>
<td>.632</td>
<td>.911</td>
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<td>15</td>
<td>.669</td>
<td>.911</td>
</tr>
<tr>
<td>16</td>
<td>.530</td>
<td>.913</td>
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<td>17</td>
<td>.473</td>
<td>.914</td>
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<tr>
<td>18</td>
<td>.627</td>
<td>.911</td>
</tr>
<tr>
<td>19</td>
<td>.600</td>
<td>.912</td>
</tr>
<tr>
<td>20</td>
<td>.658</td>
<td>.910</td>
</tr>
<tr>
<td>21</td>
<td>.524</td>
<td>.913</td>
</tr>
<tr>
<td>22</td>
<td>.148</td>
<td>.922</td>
</tr>
<tr>
<td>23</td>
<td>.595</td>
<td>.912</td>
</tr>
</tbody>
</table>

Alpha coefficient = .916
APPENDIX K

PRODUCTIVITY REINFORCERS SCALE
Below is a list of statements. Answer each statement using the numbers below. Answer each statement as it describes your situation now. Please read each statement carefully. Remember, answer each statement by thinking about your current situation.

1 Strongly Disagree 2 Disagree 3 Slightly Disagree 4 Neither Agree or Disagree

5 Slightly Agree 6 Agree

1. I have the opportunity to use skills which I have developed... 1
2. People in my situation have many things to do which make them feel productive. 2
3. People in my situation make use of their individual abilities. 3
4. If and when I want to, I can use my occupational skills. 4
5. People in my situation do not feel useful because they cannot use the skills which they have learned. 5
6. I feel my productivity is limited because of a lack of opportunity. 6
7. People in my situation find great satisfaction in activities which are available to them. 7
8. The talents which people in my situation have developed are useless. 8
9. People in my situation find many interesting things to do which allow them to use their knowledge, skills, and abilities. 9
10. People in my situation never seem to have enough time to do what they want to do. 10
11. The activities available to people in my situation are not worthwhile. 11
12. In my situation, the skills and abilities which I have developed do not seem to be as valuable as they used to be. 12
13. People in my situation do not have many chances to do things that make them feel useful. 13
14. People in my situation get a feeling of accomplishment. 14
15. If I wanted to, I could use the work skills that I developed. 15
16. My skills and abilities are being wasted in my current situation. 16
17. Because they cannot use the things they learned, people in my situation feel useless. 17
1. Strongly Disagree
2. Disagree
3. Slightly Disagree
4. Neither Agree nor Disagree
5. Slightly Agree
6. Agree

18. The talents of people in my situation are wasted. 18____

19. I feel I am able to use knowledge I have gained in my current situation. 19____

20. People in my situation feel very useful in the activities in which they participate. 20____

21. Because of technological progress, people in my situation feel useless these days. 21____

22. There is no need for my abilities now. 22____

23. There are many worthwhile things for me to do which make me feel useful. 23____

24. I find great pleasure in activities which are available to me. 24____
APPENDIX L

AFFILIATION REINFORCERS SCALE
Below is a list of statements. Answer each statement using the numbers below. Answer each statement as it describes your situation now. Please read each statement carefully. Remember, answer each statement by thinking about your current situation.

<table>
<thead>
<tr>
<th>1 Strongly Disagree</th>
<th>5 Slightly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Disagree</td>
<td>6 Agree</td>
</tr>
<tr>
<td>3 Slightly Disagree</td>
<td>7 Strongly Agree</td>
</tr>
<tr>
<td>4 Neither Agree or Disagree</td>
<td></td>
</tr>
</tbody>
</table>

1. People in my situation have people who are easy to make friends with. .......................................................... 1

2. I have many chances to spend time with people I like. .......................................................... 2

3. Because it is so hard to meet people in my situation, it is just not worth the time trying to make friends. .......................................................... 3

4. In my situation there does not appear to be people who are approachable. .......................................................... 4

5. People in my situation have a hard time meeting people. .......................................................... 5

6. I have many opportunities to spend time with people who are important to me. .......................................................... 6

7. In my living situation I seldom have contact with other people. .......................................................... 7

8. People in my situation have many activities in which they socialize with other people. .......................................................... 8

9. People in my situation never have a chance to meet new people. .......................................................... 9

10. I wish there was more of an opportunity to meet new people. .......................................................... 10

11. People in my situation spend all of their time alone. .......................................................... 11

12. I have many friends who I can contact each week if I want to contact them. .......................................................... 12

13. People in my situation have few chances to spend time with people who they feel close to. .......................................................... 13

14. People in my situation always feel isolated from other people. .......................................................... 14

15. People in my situation have the opportunity to meet other people if they really want to meet people. .......................................................... 15

16. In my situation there are very few activities to participate in with other people. .......................................................... 16

17. People in my situation can spend as much time with other people as they want to spend with them. .......................................................... 17

18. I have many opportunities to spend time with people who are special to me. .......................................................... 18
<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th></th>
<th>Slightly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disagree</td>
<td>5</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Slightly Agree</td>
<td>6</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>4</td>
<td>Neither Agree or Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. People in my situation have few chances to spend time with other people. ......................................................... 19____
20. People in my situation have many friends to spend time with. ............................................................. 20____
21. I wish I had more chances to make new friends. .............................................................. 21____
22. In my situation there are too many things to do with other people. ......................................................... 22____
23. People in my situation rarely have the chance to spend time with more than one or two other people. ........... 23____
LIST OF REFERENCES


