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PERSONALITY, DEMOGRAPHIC, AND SITUATIONAL VARIABLES DISTINGUISHING MINISTERS WHO STAY WITH OR LEAVE THE MINISTRY

DISSERTATION

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

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ABSTRACT

How do ministers making a career change differ from those who do not? The phenomenon of mid-career change has become more prominent since the 1970's. Career change typically occurs at mid-life, according to theories of adult development by Levinson in *Seasons of a Man's Life* and is often characterized by psychological turmoil. The transactionalist theory of stress by Lazarus & Folkman proposes that an individual's appraisal of stress is more important than total number of life hassles. Ministers typically do not self-report significant levels of burnout or stress, yet male and female ministers, participating in a career reassessment program at three mid-west centers, decided to leave professional ministry at a rate of 33.5%.

This study examined 13 validity and clinical scales of the MMPI-2 and 7 situational and demographic variables of Age, Sex, Level of Education, Marital Status, Referral Source, Career Recommendation and Threat of Termination using a multivariate discriminant analysis to determine which variables significantly distinguished between Persisters and Nonpersisters in professional ministry. The 576 ministers in this study visited three career centers between 1990-1994. The discriminant function was statistically significant with a canonical correlation of .462 and a Wilks' Lambda of .787. The Chi-square = 135.373, with 20 df, p < .001. The highest seven structural coefficients were: SEED (Level of Education), CARREC (Career Recommendation), MS (Marital
Status), PD (Scale 4), REF (Referral Source), SX (Sex) and L (Lie Scale). All variables entered together yielded a rate of 75.0% of original cases correctly classified.

The findings suggest that an individual's appraisal of stress impacts the decision to stay with or leave ministry and is moderated by whether the minister has a seminary education, receives a career recommendation to stay in ministry, is currently married, measures lower on the MMPI-2 Scale 4, is self-referred to the center, is male, and measures lower on the MMPI-2 Scale L. Future research should examine how social support and psychological characteristics impact ministers at mid-life, how gender impacts the appraisal of stress and decision to leave ministry, and how vocational commitment changes across the life-span.
I wish to thank my adviser, Dr. Donald Tosi, for his continued support as this project took shape. His patience and encouragement when I was frustrated and ready to give up helped make this dissertation possible.

I thank Dr. John Gibbs for his persistence in correcting my stylistic mistakes and in challenging me to ask the tougher questions.

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## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>iv</td>
</tr>
<tr>
<td>Vita</td>
<td>v</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>vii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>x</td>
</tr>
<tr>
<td>Chapters:</td>
<td></td>
</tr>
<tr>
<td>1. Introduction and Overview</td>
<td>1</td>
</tr>
<tr>
<td>Theoretical Rationale</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>11</td>
</tr>
<tr>
<td>Need for the Study</td>
<td>12</td>
</tr>
<tr>
<td>Research Hypotheses</td>
<td>16</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>17</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>20</td>
</tr>
<tr>
<td>2. Background</td>
<td>22</td>
</tr>
<tr>
<td>Review of the Literature on Personality Assessment With Ministers Using the MMPI</td>
<td>23</td>
</tr>
<tr>
<td>History of Personality Assessment of Ministers</td>
<td>23</td>
</tr>
<tr>
<td>Descriptive Studies Using the MMPI With Ministers</td>
<td>25</td>
</tr>
<tr>
<td>Predictive Studies Using the MMPI With Ministers</td>
<td>28</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>The Predictive Discriminant Analysis</td>
<td>94</td>
</tr>
<tr>
<td>5. Discussion</td>
<td>99</td>
</tr>
<tr>
<td>Summary and Explanation</td>
<td>99</td>
</tr>
<tr>
<td>SEED (Seminary Education)</td>
<td>105</td>
</tr>
<tr>
<td>CARREC (Career Recommendation)</td>
<td>108</td>
</tr>
<tr>
<td>MS (Marital Status) and SX (Sex)</td>
<td>109</td>
</tr>
<tr>
<td>Scale PD Psychopathic Deviate</td>
<td>112</td>
</tr>
<tr>
<td>REF (Referral Source)</td>
<td>116</td>
</tr>
<tr>
<td>Scale L Lie</td>
<td>119</td>
</tr>
<tr>
<td>Variables Not Reaching Significance</td>
<td>121</td>
</tr>
<tr>
<td>Conclusions and Recommendations</td>
<td>123</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>Geographical Location of Subjects</td>
</tr>
<tr>
<td>2</td>
<td>Number of Subjects by Denomination</td>
</tr>
<tr>
<td>3</td>
<td>Means of Selected Variables by Denomination</td>
</tr>
<tr>
<td>4</td>
<td>Racial Distribution of Sample</td>
</tr>
<tr>
<td>5</td>
<td>Means and Standard Deviations of Persisters and Nonpersisters</td>
</tr>
<tr>
<td>6</td>
<td>Variables Used in the Statistical Analysis</td>
</tr>
<tr>
<td>7</td>
<td>Wilks' Lambda and F Statistic for Selected Variables</td>
</tr>
<tr>
<td>8</td>
<td>Summary of the Discriminant Function Statistics</td>
</tr>
<tr>
<td>9</td>
<td>Test of Functions</td>
</tr>
<tr>
<td>10</td>
<td>Unstandardized/Standardized Canonical Discriminant Function Coefficients</td>
</tr>
<tr>
<td>11</td>
<td>Structure Matrix – Pooled Within-Groups Correlations</td>
</tr>
<tr>
<td>12</td>
<td>Classification Function Coefficients</td>
</tr>
<tr>
<td>13</td>
<td>Classification Summary</td>
</tr>
<tr>
<td>14</td>
<td>Cross-Validation of Correctly Grouped Cases</td>
</tr>
<tr>
<td>15</td>
<td>Marital Status of Persisters and Nonpersisters by Gender</td>
</tr>
<tr>
<td>16</td>
<td>Referral Source of Persisting and Nonpersisting Ministers</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

This exploratory study examines whether the means of discriminant scores with respect to personality, demographic and situational variables of ministers are significantly different for groups of Persisters and Nonpersisters in ministry. This study also investigates whether these variables are useful in predicting groups of Persisters and Nonpersisters in ministry beyond the level of chance. The subjects of this study were male and female ministers who participated in a career reassessment service located at a midwest counseling center from 1990-1994. The thirteen (13) personality variables are measured by the Minnesota Multiphasic Personality Inventory - 2 (MMPI-2) and the seven (7) demographic/situational variables were obtained from individual client interviews. Persisting or not persisting in ministry was determined from annually published roster lists obtained from eight Protestant denominations. Chapter 1 is organized as follows: 1) Rationale 2) Purpose 3) Need for the Study 4) Research Hypothesis 5) Definition of Terms 6) Limitations.

Theoretical Rationale

Career change typically occurs at mid-life, according to theories of adult development by Levinson and associates in Seasons of a Man's Life and is often characterized by greater psychological turmoil, conflict and change (Osipow, Doty & Spokane, 1985). The phenomena of mid-career change has become more prominent since
the 1970’s which leads researchers to wonder how those who make significant life changes may differ on selected variables from those who do not change (Hiestand, 1971). What are the psychological, situational and demographic characteristics of those who choose to make a career change, and can ministers who leave professional ministry be identified with measures of personality and situational and demographic variables?

Women and men who respond to a call to the church’s ministry and then later choose to leave it have done so, by most accounts, only after great deliberation, self-searching and prayer (Jud, Mills and Burch, 1970). The decision to leave often takes place after experiencing painful failure, facing shortcomings and enduring rejection. Psychologically, people who change any career often experience severe stress in which coping and self-regulatory skills are tested and strained before a resolution is achieved (Perosa and Perosa, 1983).

Life events become particularly stressful when they challenge self-definition (Carver and Scheier, 1999). Stress occurs as people become aware they have misperceived situations. They perceive a gap between the actual situation and what they had intended. Stress increases when people become aware that they hold conflicting goals, and disengagement from a higher-order goal may mean re-evaluating core elements of the self.

Lazarus’s work with the human stress response found stress results when the environmental demands exceed the individual’s resources. Lazarus and Folkman (1984) proposed a transactionalist theory of stress in which an individual’s appraisal of stress may be more important to well-being than number of life events or hassles. Appraisal takes a primary and secondary form according to this model. In primary appraisal the person evaluates whether or not a threat exists. In secondary appraisal the person evaluates
options for coping. When the demands of a situation are met with sufficient resources, stress is minimized. Stress develops when either the demands increase or the resources to meet the demands are no longer available.

The interaction of individual personality factors, job structure within organizations and stress was the focus of study by researchers Cherniss (1980) and Cooper and associates in the United Kingdom. Cherniss researched stress among human service workers. He described five personality factors that typically influence the individual's response to stress: neurotic anxiety, the Type A syndrome, locus of control, flexibility and introversion. Cherniss found personality factors influenced a person's coping response, but he also concluded that job structure and the work organization were an even stronger determinant of stress and burnout than individual personality.

Cooper and associates in the United Kingdom researched stress related illnesses among white collar occupations and found workers reporting increasing amounts of stress and strain in the work place. They found Type A behavior, in particular, to have a direct causal impact on physical ill-health for groups of police officers (Cooper, Kirkcaldy, and Brown, 1994) U.K. civil servants (Bogg and Cooper, 1995) and general practitioners (Rout, Cooper, and Rout, 1996). The Type A personality is described as someone aggressive, time pressured and competitive with tendencies to become angry easily.

A recent meta-analysis of nearly 300 studies did not find the Type A personality, as such, to be associated with high blood pressure and heart disease (Jorgensen, Johnson, Kolodziej and Schreer, 1996), but anger, a specific trait of the Type A syndrome, is identified as the personality characteristic that correlates with greater risks of heart attacks and strokes. Pessimism, depression and denial have also been found to be associated with poorer health.
Effective self-regulation and the management of stressful emotions become important in the pursuit of goals, particularly vocational goals. Certain types of coping responses such as pessimism and negative affectivity, components of neuroticism, can lead people to misjudge situations that they evolve in ways that become stressful. Smith (1992) described a “transactional model” of personality and stress in reference to angry displays of antagonism and aggressiveness associated with Type A/Hostility. The effects of this personality display in the work environment are to increase exposure to stressful conditions and physiologic reactivity, as well as diminish coping resources and social support.

When ministers and vocational commitment are examined, personal fulfillment factors are found to be especially important in the ministers’ decision to continue in their current position (Hoge, Dyble & Polk, 1981; Jud, Mills & Burch, 1970; Mills & Koval, 1971; Mills, 1969; Willette, 1997). The research agrees that ministers who report having greater personal freedom, time to study, time for themselves and their families and who indicate that their work is meaningful and satisfying have higher commitments to ministry.

A minister’s professional commitment was found to be negatively impacted by increased age, lower task enjoyment, lower overall satisfaction, greater alienation from congregational leaders, more serious church conflicts, marital crises, health problems and hopelessness for a group identified as Secular in the Mills, 1969, study. On the other hand, Jud, Mills and Burch (1970) found ex-pastors had a stronger pattern of early career job changes, tended to be better educated, were more interested in community activities and less satisfied with the typical ministerial role of preaching, calling on the sick and facilitating growth in faith.

Similar findings are reported in organization commitment research with other professions. O’Reilly and Chatman (1986) identified three underlying dimensions of the
construct organizational commitment among nonfaculty university employees and business students. Psychological attachment to the organization, they found, may be based on compliance to organization's rules and structure, identification with and desire for affiliation within the organization and internalization of the organization's values. Only identification and internalization were positively related to prosocial behaviors and negatively related to turnover. In a meta-analytic review of occupational commitment over 76 samples, Lee, Carswell and Allen, (2000) found occupational commitment positively related to job-focused constructs such as job involvement and satisfaction. They also found occupational and organizational commitment were positively related with the relationship moderated by the degree of compatibility between the profession and the employing organization.

When the interface between the individual and work environment is perceived by the individual as too stressful, disengagement may become an adaptive response (Carver and Scheier, 1999; Perosa and Perosa, 1983). For ministers undertaking a career assessment the critical question is when to keep trying and when is it time to give up. Disengagement, in certain circumstances, can be understood as an important part of self-regulation if conflicts are so severe and there is too much stress. Instead of remaining stuck in the past, people who can substitute other goals after experiencing a loss are better able to re-engage with life. Carver and Scheier suggest that those who have goals at a more abstract level are usually able to shift among multiple paths to those goals more easily.

Ministers who change careers and job-changers generally report a similar pattern leading to change. Although changing was experienced as stressful, ministers often reported greater job satisfaction, less marital stress and higher income after changing careers in studies by Jud, et al. (1970) and Willette (1997). Perosa and Perosa (1983),
who examined mid-career change and crisis for 134 females and males, reported those who changed careers perceived a threat to self in which they felt compelled to change, but after completing the career change, 52% of the participants in their study reported feeling better about themselves and feeling stronger, and forty-nine percent in the changing group also reported similar feelings. Findings in the job changing literature also indicate more job-changers than non-changers report having greater intrinsic motivation, more life changing experiences leading to self-examination and a better person/occupational fit with the new job (Neapolitan, 1980; Kanchier & Unruh, 1988).

The present study examines the personality, situational and demographic variables that significantly discriminate between Persisters and Nonpersisters among professional ministers who have undertaken a career assessment and subsequently decide to stay with or leave professional ministry.

**Job Stress In Ministry.** Certain professions, such as ministry, have a high potential for stress and conflict. Ministry is a profession credited with responsibility for the care of people who are often in crisis situations. Ministers are frequently on call 24 hours a day, 7 days a week, and are under scrutiny of congregations, communities and denominational governing bodies to perform in an exemplary manner during that time. In addition, time constraints, role ambiguity, and the need to please diverse groups of people suggest that ministers work under stress that is both self-imposed and imposed by others.

Empirical studies consistently have been inconclusive in describing and predicting ministerial stress. Daniel and Rogers cited a Gallup Poll estimating one-third of all male Protestant pastors had considered leaving the ministry at some time in their career with conflict on the job as an often cited reason followed by marital and family stress. Blackmon and Hart (1990) reported 12% of ministers surveyed experienced depression "always" or "often" in the ministry. Mills and Koval (1971) reported 75% of the 4,665 male respondents to their Protestant Stress Survey identified periods of stress at some time in their ministry and that the pattern of stress experienced later in the ministerial career generally corresponded to the period of mid-life. Pastors also experience stressful work situations. A recent survey of Protestant ministers in Leadership magazine (Goetz, 1996) found 22.8% of respondents reporting they had been either fired or forced to resign from a church position.

Although overall levels of burnout were lower for a group of American Baptist clergy in comparison to other clergy, Rodgerson (1994) found personality variables more than situational variables predicted burnout. Beck (1997) also found average levels of burnout and job satisfaction among a group of Iowa Lutheran ministers.

Research on women ministers and self-reports of stress have found both similarities with men ministers and differences unique to women. Women ministers studied by Eaton and Newlon (1990) reported problems with loneliness and overload on hours spent doing their job. Over 50% reported spending 58 hours or more a week at work. Rayburn, Richmond and Rogers (1986) found clergywomen acknowledged the experience of discrimination in hiring practices, receiving rejection and blame more than their male counterparts yet believed that women ministers generally coped better than male ministers with personal and professional stress, but more recently a United Methodist Clergywomen Retention Study by Wilborg and Collier (1997), found women clergy were
leaving ministry at a rate of 33% and documented the inequitable experiences between men and women clergy serving pastorates.

Inferences of possible stress have been made in other studies. For example, Ekhardt and Goldsmith (1984) found women seminarians to be more dominant, intellectual, less willing to engage in helpful behaviors, and less submissive than women in the general population. The authors concluded that women may not be as readily perceived as ministerial in the congregation and therefore may experience less congruence in the ministry and more stress. Nesbitt (1997) described differences in career trajectories for men and women with women receiving fewer calls to solo positions in larger churches. Women may experience stress due to fewer opportunities for advancement.

**Stress, Age and Mid-Life Career Change.** Research on adult development and mid-life change has grown from the seminal works of Erikson (1950), Vaillant (1977) and Levinson and his associates in 1978. The mid-life period, occurring roughly between the ages of 35 and 55, has been cited by researchers as a time of reevaluation and change for many men and women in our culture (Murphy & Burck, 1976; Entrekin & Everett, 1981; and Waskel & Phelps, 1995). While many people may not experience a dramatic mid-life "crisis," they continue to make gradual changes and adjustments appropriate to their life situations over a period of years (Caspi and Roberts, 1999). When job stress is examined as a function of age and career stage, the mid-career group (ages 35-50) is more significantly impacted by life events (Hurrell, McLaney, and Murphy, 1990).

In a study of ex-pastors, Jud, Mills & Burch, 1970, examined why male United Church of Christ pastors leave the ministry. Reflecting on the commitment to the profession of ministry, Jud et al. noted that "the combined impact of changes in church,
society, family, and faith systems has produced in many ministers a delicate balance of hope and frustration which makes them vulnerable to tipping point experiences, and that out of this situation many have moved to a redefinition of self or of ministry which leads to career-change decisions" (p. 91). Pastors and ex-pastors, they concluded, largely differ in that they "live on opposite sides of the tipping point" (p. 107).

Two of the most extensive research studies on male clergy, stress and career change in the Protestant ministry were done by Mills (1969) and Mills and Koval (1971). Mills (1969) examined why Protestant pastors may move into specialized ministries or into secular work. Age was found to be a differentiating variable for those making a career change usually within the first 20 years. While no personality factors were found to characterize group differences, Mills concluded that environmental strain along with psychological limitations were an "important causal nexus" (p. 20) that led to career changes.

Age was the most predictive factor of stress for a group of Protestant clergy studied by Mills and Koval, 1971. Job stress tended to move from higher levels with younger men to lower levels in older men. Higher levels of stress due to illness were experienced by older men. Mills and Koval noted the pattern of reported stress later in the ministerial career generally corresponded to the period of mid-life.

MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI) STUDIES OF MINISTERIAL PERSISTENCE. The MMPI has a long history of use among professional groups including the ministry to assess outcome of vocational training and personality related to work performance (Dahlstrom, Welsh & Dahlstrom, 1972; Butcher, 1979).

Earlier research using the MMPI to predict persistence and nonpersistence in ministry used MMPI data collected when the subject entered seminary or the mission field.
and attempted to predict career persistence some years later. Hook (1992) and Sprinkle (1989) found few identifying psychological or demographic characteristics differentiating those who stayed from those who left the ministry. Hook noted Nonpersisters tended to have an advanced degree before entering seminary and were higher on the Paranoia scale than Persisters. Sprinkle found combined psychological characteristics of missionary husband and wife MMPI variables to "modestly" predict persistence. They were lower Social Introversion for husband and lower K (Defensiveness) and L (Lie) scores for the wife. Kyne (1992) examined MMPI clinical and subscales for male and female applicants for overseas missions and found a higher scale Paranoia, Paranoia 3-Naivete, Social Introversion 3-Staid-Personal Rigidity and lower on AUT-Authority Conflict predicted longevity in the missionary field. The higher elevation on the Paranoia scale predicted persistence for foreign missionaries while a lower score on this scale supported persistence for national ministers.

Characteristics of women who persist or leave the Protestant ministry have not been empirically researched. Descriptive studies of personality characteristics of women in ministry have largely been confined to data obtained with the Minnesota Multiphasic Personality Inventory (MMPI) with entry into seminary (Sullender, 1993; Stone, 1990). These studies suggest women and men ministers are more similar to each other than to their respective sex in the general population with men often having more feminine characteristics and women more masculine ones.

Earlier research with the MMPI and prediction of persistence in ministry may have been hampered by research designs and selection issues that obscured differences in research groups. For example, prediction studies of persistence in professional ministry may have been weakened by the exclusive use of testing data acquired when the ministerial candidate entered seminary or applied to the mission field. There is a gradual
winnowing process as some candidates re-evaluate goals and leave seminary before graduation thereby reducing the variability in MMPI scores of the original sample. Prediction results in these studies are also confounded by individual psychosocial growth and situational factors at the time of the decision to leave ministry. Identification of who stays and who leaves ministry is further blurred by personnel practices of most denominations that typically try to place ministers, not in congregational ministry, within the service of the larger church. The nonpersisting minister may also change denominations (Kyne, 1992).

Research is needed using the MMPI-2 as an assessment instrument with male and female ministers who are currently exploring a career change and who subsequently decide to stay or leave the ministry. This study will critically examine the 13 validity and clinical scales of archival MMPI-2 test data and the demographic variables of Age, Sex, Education Level, Marital Status and Career Recommendation, Self or Other Referred to the center, and Threat of Termination to determine their statistical ability to predict career change for this sample of ministers.

Purpose

The purpose of the present research study is to critically examine the psychological, situational and demographic variables of individuals undertaking career reassessment during the years 1990-1994 at Midwest Career Development Service (MCDS) in order to identify and predict persistence and nonpersistence in professional ministry. Persistence and nonpersistence in the national ministry has been shown to have varying degrees of correlation with certain psychological variables measured by the original MMPI (Morse, 1962; Hook, 1992; Stone, 1990). It is believed that the 13
validity and clinical scales of the MMPI-2, a related but different instrument, will also correlate with the same construct (Van Epp, 1996). This study also investigates how selected demographic and situational variables may individually or in combination influences the decision to persevere or not persevere in ministry.

Need for the Study

It is believed that this study will provide information helpful to Midwest Career Development Center, denominational judicatories, and individual ministers to better understand who may be candidates for career change, the types of stress they may be experiencing and how they may be better served by counselors and denominational leaders.

This study is also an attempt to contribute to the research in the area of MMPI and MMPI-2 studies in personality assessment with ministers who are exploring a career change.

Research Questions: 1) Are there statistically significant differences in the means of the discriminant scores for the two groups (Persisters vs. Nonpersisters) with respect to the 13 validity and clinical scaled scores of the MMPI-2 and the 7 demographic and situational variables of Age, Sex, Education Level, Marital Status, Career Recommendation, Self-other Referred, and Threat of Termination? 2) If so, will these variables be useful in predicting those who stay and those who leave ministry?

Research on description and prediction of persisting and nonpersisting career ministers using MMPI clinical scales has been inconclusive. Researchers have found few differences that are statistically significant (Reasoner, 1988; Sprinkle, 1989; Hook, 1992) or differences are not easily generalizable to a larger population of ministers (Banks et al., 1984; Dillon, 1983; Kyne, 1992).
Banks et al. found age and MMPI scales - Schizophrenia, Psychasthenia and Social Introversion best discriminated Persisters and Nonpersisters. Dillon found persevering missionaries lower on L (Lie), and higher on F (Infrequency), Psychasthenia, and Control. Over time missionaries who did not persist had higher scaled scores on Schizophrenia and Depression. Kyne (1992) found overall longevity in the field to be best predicted by mild elevations on Paranoia, Paranoia 3-Naivete, Social Introversion 3-Staid-Personal Rigidity and lower on AUT-Authority Conflict. There were differences on scaled scores for men and women who persevered. Men who persevered tended to score higher on Scale K-Defensiveness, Hysteria 1-Denial of Social Anxiety, and Hypomania 1-Amorality while scoring lower on Schizophrenia 1-Social Alienation. Women who persevered tended to score lower on Psychopathic Deviate, Psychopathic Deviate 3-Social Imperturbability, St-Social Status, and higher on FEM-Feminine Interests, Paranoia 3-Naivete, and Social Introversion 1-Inferiority-Personal Discomfort. Scores higher on Paranoia supported foreign missionaries while lower scores on this scale supported national ministers.

Earlier research with the MMPI and ministers has been limited to scaled scores from archival MMPI data obtained when the candidate entered seminary. Attempting to predict persistence and nonpersistence in ministry from this data may not account for the modifying experiences of seminary training, life experiences and normal maturing. This study uses data collected during the years 1990-1994 for male and female Professional Church Workers who came to the career center specifically for career reassessment.

Persistence information was obtained from denominational roster lists published in 1996 and matched with names of clients by MCDS employees. Allowing for one year interval between the last year of data collected and the determination of persistence gave subjects time to make decisions to stay with or leave ministry. Clearly, decisions to
change career may often take more years to make while the minister plans for either further education or work in a different field. The one year interval also gives more time for career change decisions to those who came to the center in the earlier years. In addition, it would not be unusual for those who may have made a change right after career reassessment to have re-entered the ministry and again be on the roster list as of 1996. This study did not have information to address those issues. The definition of persisting and nonpersisting for this study means male and female Professional Church Workers who came to the career center during the years 1990-1994 as ministers in their respective denominations. Persisters were listed as serving in ministry on one of the eight denominational rosters published in 1996. Nonpersisters were not listed on their denominational rosters.

There have been no published studies or dissertations on persisting and nonpersisting ministers using the MMPI-2 scaled scores. Van Epp (1996) recently compared MMPI and MMPI-2 scaled scores of normal male ministers who had received counseling and testing in Akron, Ohio, and found scaled scores for the two instruments produced similar T scores, highest point scale codes and differentiated presenting problems with a similar hit rate. He concluded the study supported the equivalency of the two instruments.

Age, job stress and the mid-life transition have been identified in surveys of Protestant ministers by Mills (1969), Mills and Koval (1971) and Jud, Mills, and Burch (1970) as possible variables to investigate with career changing ministers. The perception of stress, especially from life events other than work, was found to be greater at the mid-adult life period (35-50) by Hurrell, McLaney, & Murphy (1990), while Osipow, Doty, and Spokane (1985) found trends toward decreasing vocational, psychological, physical and interpersonal strain for older workers in comparison to younger workers in
their study on coping across the life span for 5 age groups. The age groups 36-45 and 46-55 reported perceiving more overload and responsibility at work than other age groups but less vocational and psychological strain.

Marital status and marital problems as an indicator of stress have been identified in several studies of ministers and ministers' families (Sprinkle, 1989; Jud, Mills, & Burch, 1970; Ostrander, Henry, & Fournier, 1994). Sprinkle found psychological characteristics of missionary wife as best predicting persistence for missionary couples. Jud et al. reported both ex-pastors and pastors who continued in the ministry identified relationship with spouse as their greatest source of support. Ostrander et al. found ministers' families were significantly impacted by the amount of stress they experienced, and their level of hardiness and family coherence.

There has been little research with the MMPI and MMPI-2 that addresses adult development, age and sex across the life-span. Age on the MMPI have been reported with groups of normals, chronic pain patients, and psychiatric patients (Colligan & Offord, 1992; Fow, Sittig, Dorris, Breisinger et al., 1994; Schenkenberg, Gottfredson, & Christensen, 1984). Colligan and Offord found score increases with age for both men and women on L (Lie), Hypochondriasis, Depression, and Social Introversion. For both sexes there were declines on scales Psychopathic Deviate, Paranoia, Psychasthenia, Schizophrenia, and Hypomania.

Finn (1986), on the other hand, found evidence of greater stability in older subjects tested over a 30 year longitudinal period with 459 men. Reports of change on the MMPI and MMPI-2 scaled scores for different ages appears dependent on the design of the research. Longitudinal designs tend to find greater stability in personality characteristics while cross-sectional designs find differences when comparing cohort groups. The issue centers on whether or not the differences in cross-sectional designs are the effects of bias
due to the cohort group, or reflect meaningful personality differences. No studies have addressed adult development, age, and sex using the MMPI or the MMPI-2 with ministers.

Women have been included with men in persistence and nonpersistence studies of foreign missionaries (Dillon, 1984; Sprinkle, 1989; and Kyne, 1992), but only Stone (1989, 1990) has studied men and women national ministers using MMPI composite scores. Men were found to be more theologically conservative than women. Women tended to express more intellectual interests and to be more open and flexible in their beliefs. There were no significant differences between men and women on the variable Elevated MMPI scores, a composite score of MMPI scales.

Level of education was identified by Jud et al. (1970) and Hook (1992) as a variable descriptive of career changing ministers. Higher levels of education and previous degrees before entering seminary predicted Nonpersisters in their research.

Poor relationships with professional colleagues were identified in the research by Mills (1969), Jud, et al. (1970) and Willette (1997) as a contributing factor in leaving ministry. Nonpersisters also identified more conflict with denominational staff and congregation members than Persisters. Kanchier and Unruh (1988) found job changers identified more job dissatisfaction, shorter job tenure and more job changes in their careers. The variables Threat of Termination, Self-other Referred and Career Recommendation reflect a perception of the minister’s professional effectiveness by congregational leaders, denominational staff and MCDS staff.

**Research Hypothesis**

There is no statistically significant difference in the means of the discriminant scores for the two groups (Persisters and Nonpersisters) with respect to the 3 validity and
10 clinical scales of the MMPI-2 and the 7 selected demographic and situational variables of Age, Sex, Education Level, Marital Status, Career Recommendation, Self-other Referred, and Threat of Termination.

Definition of Terms

Age. The age of the minister at the time of career reassessment.

Adult Development A systematic process of adaptive change continuing through the adult life-span. The change is coherent and organized. It involves both growth and decline within a set of specific circumstances of time and place and with a variety of causes.

Career reassessment. The two and one-half day program of counseling and assessment offered by Mid-west Career Development Service at three regional locations to professional ministers. The assessment instruments consist of subjective and objective personality and career instruments which are taken prior to and over the course of the program. Time with both a licensed psychologist and a counselor provides opportunity to discuss the results.

Collinearity. Expression of the relationship between two or more independent variables. Two predictor variables are said to exhibit complete collinearity if their correlation coefficient is 1 and a complete lack of collinearity if their correlation coefficient is 0. Multicollinearity occurs when any single predictor variable is highly correlated with a set of other predictor variables (Hair, Anderson, Tatham, & Black, 1995). The level of multicollinearity will impact which variables enter the stepwise solution.
Cross-Validation approach. Procedure for dividing the sample randomly into two
groups so that the discriminant function can be developed on one group and then tested
on a second group.

Descriptive Discriminant Analysis. The primary objective of DDA is to identify linear
discriminant functions that describe and explain the effects of a grouping variable on a set
of criterion variables. The independent criterion variables are usually metric and the
dependent grouping variables are categorical (Huberty & Barton, 1989).

Elevated Scale. A scaled score of 65 (Graham, 1993) on the

Hit ratio. Percentage of statistical units i.e., individuals who are correctly classified by
the discriminant function.

Homoscedasticity. When the variance of the error terms appears constant over a range
of predictor variables, the data are said to be homoscedastic.

Linear Classification Function. A linear composite of the response variables useful in
determining group assignment of units in a PDA.

Linear Discriminant Function. An LDF is a linear composite of the outcome variables
in a DDA obtained through an eigenanalysis. They are useful in identifying a structure
underlying group comparison effects. The maximum number of LDFs is usually one less
than the number of criterion groups. In a two group situation LDFs are also used for
classification purposes (Huberty & Barton, 1989).

Mid-life Transition. A period of life for both men and women generally corresponding
to the years 35-55 when there is a greater likelihood of a reevaluation of personal and
vocational commitments due to perceiving more frustration and dis-ease with previous life
choices.
**Nonpersisting ministers.** Nonpersisting ministers are clients of MCDS during the years of 1990-94 who are not listed on their denominational roster as active or are listed as resigned, on study leave, and on leave not awaiting call. Nonpersisting is defined as inactive as of December 31, 1995, or as of June, 1995, for the United Methodist ministers.

**Normality.** Degree to which the distribution of the sample data corresponds to a normal distribution.

**Persisting ministers.** Ministers who are listed on their denominational roster list as active as of December 31, 1995. United Methodist ministers are defined as active when they are listed in the United Methodist Church General Council Minutes of 1996 which is current information as of June, 1995. Additional categories of active minister are interim pastor, temporary supply pastor, on leave awaiting call, or serving in another denomination.

**Personality.** An array of relatively enduring characteristics which translates into consistent patterns of behavior across diverse situations. Current research on personality across the life-span suggests that there is less consistency in test/re-test measurements than once thought, indicating that personality characteristics can be influenced by experience (Caspi and Roberts, 1999). Personality patterns for this research are identified by the MMPI-2 profiles and are defined in Chapter 3.

**Predictive Discriminant Analysis.** PDA is used to investigate whether an identified set of response variables predicts group membership on one or more nominally scaled variables.

**Professional Church Workers.** All male and female professional church workers listed in the Mid-west Career Development Service (MCDS) data base for 1990-94 whose status as persevering or nonpersevering could be determined from their respective denominational rosters of active clergy. Ministers could be working in the capacity of
pastors of a congregation, youth pastors, associate pastors, directors of Christian education, pastoral care or counseling pastors, chaplains, missionaries, or church executives.

Stress Stress is minimized when the demands of a situation are met with sufficient resources. Stress occurs when the environmental demands are appraised as exceeding the individual’s resources. Lazarus and Folkman (1984) proposed a transactionalist theory of stress in which an individual’s appraisal of stress may be more important to well-being than number of life events or hassles. Appraisal takes a primary and secondary form according to this model. In the primary form the person appraises whether or not a threat exists. In the secondary form the person evaluates options for coping.

T-Score. A transformation of raw scores in which the mean is 50 and standard deviation is 10. For scales L (Lie), F (Frequency), K (Defensiveness), Masculinity/Femininity, and Extroversion/Introversion, the T scores are linear. The scales are not equivalent across scales. For scales Hypochondriasis, Depression, Hysteria, Psychopathic Deviate, Paranoia, Psychasthenia, Schizophrenia, and Hypomania, special uniform T scores are used such that a given level of T is equivalent in terms of percentile rank across the clinical scales.

Variate. Linear combination of variables formed in the multivariate technique by deriving empirical weights applied to a set of variables specified by the research.

Limitations of the Study

Only Protestant professional ministers from eight denominations - United Methodist Church, Evangelical Lutheran Church in America, Presbyterian Church - USA, Disciples of Christ, Church of the Brethren, Episcopal Church, American Baptist Church, and the United Church of Christ were included in the study.
Both ordained and nonordained professional ministers were sampled. The status of ordination denotes that the minister has completed the education and professional requirements of his or her denomination to obtain full clergy privileges. A nonordained professional minister has not completed the requirements for ordained status and frequently works in a specialized ministry in the church or as a local pastor whose authority is limited to a specific congregation.

The sample of professional ministers included in this study were taken from the client database of MCDS for the years 1990-1994, the first five years in which the MMPI-2 was used for clients to this center. This range of time allowed for a large enough sample for the statistical analysis and at least one year's time elapsing between career reassessment and the decision to leave or stay in the ministry, which was determined by denominational roster lists published in 1996.

The psychological variables used were the MMPI-2 scales - 3 validity and 10 clinical scales available to the researcher from the MCDS database. Individual answer sheets were computer scored, and K-corrected T scores for the 13 scales were subsequently entered into the file. The answer sheets were not available to the researcher. Scales are identified and defined in Chapter 3 - Methodology.

The demographic and situational variables were obtained from the individual interview. The variables of Age, Sex, Education Level, Marital Status, Career Recommendation, Self or Other Referred, and Threat of Termination were selected for analysis based on previous research that determined these are variables likely to be related to decisions of ministers to leave the ministry.
CHAPTER 2

BACKGROUND

The chapter examines the literature pertaining to male and female ministers who stay with or leave professional ministry. An assumption of this study is that ministers participating in a career reassessment program, who decide to either stay or leave ministry, can be described and distinguished by the validity and clinical scales of the MMPI-2 and selected situational and demographic variables of Self-other Refered, Threat of Termination, Age, Sex, Level of Education, Marital Status, and Career Recommendation. The chapter is organized as follows: The first section is a review of the literature using the MMPI with ministers to describe and predict those who stay with and those who leave professional ministry: History of Personality Assessment of Ministers; Descriptive Studies Using the MMPI; Predictive Studies Using the MMPI.

The second section is a review of the literature on organizational, demographic and situational factors related to ministers who stay and those who leave the profession: Age and Mid-Life Change; MMPI and Age Related Personality Change; Mid-Career Change in Organizations; The Role of Personality in Job Stress Research; Surveys of Protestant Ministers Who Leave Ministry.
Review of the Literature on Personality Assessment With Ministers Using the MMPI

**History of Personality Assessment of Ministers.** The personality assessment instrument designed by Starke R. Hathaway and J. Charnley McKinley (1943) known as the Minnesota Multiphasic Personality Inventory (MMPI) became, as early as 1946, among the 20 most widely used psychological tests. By 1982 the MMPI was rated in popularity second only to the Wechsler Adult Intelligence Scale among tests used by clinicians according to the Mental Measurements Yearbook, 1992. Walsh and Betz (1995) listed the MMPI and the revised MMPI-2 as the most widely used research and clinical instrument available with a cumulative total of over 6,000 references listed in the Mental Measurements Yearbooks since it was published. The MMPI and MMPI-2 have been validated as an objective assessment of personality with an extensive number of clinical and vocational groups employing 115 translations of the instrument in 65 countries (Butcher, 1994). Although time consuming and lengthy, the instruments are known for the ease with which they can be administered, scored, interpreted, as well as the availability of 50 years of published research.

Dahlstrom, Welsh, and Dahlstrom (1972) listed numerous MMPI research studies with professional groups in which the MMPI was used to screen new applicants, predict job performance and attrition rates. Rouse and Butcher (1995) listed 535 studies and papers with over 60 different work populations since the MMPI was first published. The MMPI has been required for some professions deemed stress-vulnerable and requiring a high level of public trust such as medical students (Schofield, 1970), police officers (Bartol, 1991), firefighters (Arvey, Mussio, & Payne, 1972), and Air Force cadets (Lachar, 1974), as well as ministers.
Although assessment of clergy personality dates from the 1920's when personality testing first began using Robert Woodsworth's Personal Data Sheet (Walsh & Betz, 1995), research with seminarians and clergy using the MMPI began soon after it was published. Rouse and Butcher (1995) listed 60 empirical studies using the MMPI to examine clergy personality, effectiveness, and attrition - more than any other occupational group. One of the first studies was done by Bier in 1948 with Roman Catholic seminarians. Investigating a male seminary group in comparison with four other student groups from medicine, law, dentistry and college undergraduates using 9 MMPI scales, he found the seminary group the most "deviant" of the five.

When the MMPI is used for personnel selection, the intent has been to "screen-out" applicants by identifying existing pathology rather than to define inclusion rules to fit certain personalities to specific jobs (Butcher, 1979). Pre-employment screenings have, in some instances, been mandated by law for jobs considered hazardous or involving public safety such as police officers and firefighters. However, Dittes (1962) noted that when selecting criteria for "effective" functioning of ministers in order to "screen-out" the psychologically maladjusted, church denominations and researchers found themselves struggling to define and measure just what those criteria were.

Haight (1980) and Comer (1983), studying MMPI scores of entering seminary students, identified Severity of Record 1 and 2 or number of MMPI scales above a critical value and overall elevation of the profile as most accurately predicting psychologists ratings. Yet, denominational board decisions for ordination were reported as correlating only .40 with psychologist's ratings, indicating the Board was including other information (Haight, 1980) in its decisions. Malony and Majovski (1986) also questioned how psychological assessments were used in Board decisions for ordination when 90% of the
candidates in their study were recommended for ordination, 71% recommended for later ordained, and 33% of those recommended to be rejected were ordained.

Butcher (1979, 1989) and Graham (1993) have advocated careful consideration of legal and ethical uses of the test when the MMPI or MMPI-2 is used with normal populations such as the need for sensitivity to invasion of privacy laws, awareness of court decisions which have ruled certain test items as inappropriate and unrelated to job performance, and compliance with the 1964 Civil Rights Act. Sweeney (1964) has argued that personality assessments like the MMPI should not be used with seminarians unless the test is taken voluntarily, the results kept confidential and used for the benefit of the candidate rather than as a "screening-out" device. Banks, Mooney, Mucowski, and Williams (1984) also argued for greater clarity in regard to who the client is in seminarian and clergy assessments and for providing assistance to candidates who are experiencing problems. Similarly, Lachar (1974) in a classic study of Air Force cadet adaptation recommended that the MMPI be used as a clinical instrument with applicants rather than as a means to eliminate problem candidates.

**Descriptive Studies Using the MMPI With Ministers.** Several early reviews of the literature by Barry and Bordin (1967), Nauss (1973), Bloom (1971), and Dunn (1965) examined religious leaders from different denominations to find differences in personality characteristics. Unfortunately, the reviews did not uniformly compare the minister's MMPI profile with other groups from the general population, did not look at the heterogeneity of the samples they examined, and tended to paint either glowing or dismal portraits of ministers. They are informative in providing a complex picture of the ministerial personality.

Barry and Bordin (1967) reviewed both survey and psychometric studies and the autobiographical statements of 34 Protestant, Roman Catholic and Jewish clergy. They
concluded there were considerable similarities among ministers in general and summarized their personality characteristics clinically, while noting that the Masculinity-Femininity scale on the MMPI is often elevated for this population. Ministers, they reported, tended to be introspective, idealistic, and concerned with right and wrong. Ministers adopted service roles with a mixed masculine-feminine modality and chose an occupation which required self-display. They speculated that it was "a failure to achieve the fine balance of identification with both father and mother" (p. 401) that was a source of major difficulty for persons in ministry. The family history of ministers, according to the authors, often revealed fathers to be weak; mothers dominant yet keeping the ideal of the father alive; the use of guilt-inducing, verbal discipline; and the presence of a ministerial role-model in adolescence.

Bloom (1971), himself a Jewish rabbi, reviewed research literature on "pulpit" ministers and observed that "the clergy are a deviant group in American culture" (p. 51). Anticipating later clinical work with the MMPI, he noted that the variables of age, environment and mood can be problematic in interpreting the MMPI scales and that studies which omit the validity scales L, F, and K hinder interpretation of defensiveness and conflict. He also commented on the tendency of clergy to have high K scores indicating greater defensiveness but agreed with Kania (1965) that this elevation could be due to age, maturity and greater ego strength. Bloom then observed that ministers tended to be lonely, set-apart people, repressed and isolated, had an inability to become involved with people and for those who did become involved, they were perhaps overcompensating for a more natural tendency toward isolation. There was a "dangerous" tendency to "merge" with others to the point that the sense of self was lost. Consequently, ministers often tended to become observers and commentators of society rather than participators. The attraction of church work for such a person might be that it offered sanctuary for
someone who experienced guilt for deep feelings of hostility and rebellion and an arena of safety where those issues could be worked out.

Nauss (1973), employing a more empirical approach in his review of Protestant and Roman Catholic students, included only those studies which compared MMPI results with general population norms or another nontheological group. Nauss also wanted to phrase MMPI clinical interpretations more positively and thought in terms of mental health rather than emotional illness. He found the MMPI profiles of seminarians revealed the following characteristics: ego-strength, good emotional adjustment, friendly, enthusiastic, cooperative, self-confident, showing initiative, showing ease of oral expression and leadership qualities, extroverted and socially at ease with others (p. 88).

Dunn (1965), who reviewed Roman Catholic research with men and women religious, was perhaps the most pessimistic of all the reviewers. He found normative studies such as Bier's indicated seminarians scored .5 SD above the norm on scales Hypochondriasis, Hysteria, Psychopathic Deviate, and Paranoia in comparison with 1422 college students and 1.5 SD above the norm on Masculinity/Femininity. Descriptive studies with younger seminarians indicated high scales on Masculinity/Femininity, Psychasthenia, and Schizophrenia while effect-of-training studies indicated greater deviancy as years of seminary training increased. He described people attracted to the religious life as tending to be "worrisome, perfectionist, and withdrawn" and tending to become more so the longer they spent in the religious environment.

Several recent descriptive studies using the MMPI found similar psychometric profiles in comparison to earlier research. Patrick (1991) found a "striking resemblance" to the ministerial profile reported by Nauss for both men and women candidates he studied although the mean age of his sample was higher. Stone (1990) examined composite scores for seven MMPI scales of men and women first and second career seminarians and
found no significant effect based on sex for the variable Elevated MMPI scores. Other assessment instruments indicated women in Stone's sample were more theologically liberal, more flexible and open in their beliefs and generally, had greater academic abilities than the men. Sullender (1993), comparing MMPI profiles of men and women first and second career seminarians, found candidates were basically unconflicted people who were well suited for leadership positions. Men scored significantly higher on O-H (Overcontrolled Hostility) indicating they may have more problems managing anger than the women. Both men and women scored higher on Fi (Favorable Impression) in comparison to the normative sample, and women scored significantly higher than the men, suggesting they may be overconcerned with gaining and maintaining social approval and avoiding social rejection.

Predictive Studies Using the MMPI With Ministers. Research studies on persistence in seminary and in ministry have investigated the personality profiles of male national ministers (Morse, 1962; Baer & Moynihan, 1964; Banks, Mooney, Mucowski, & Williams, 1984; Hook, 1992; Stone, 1990) and male and female foreign missionaries (Dillon, 1983; Reasoner, 1988; Sprinkle, 1989; and Kyne, 1992). Making the determination of persistence is different and simpler than deciding the criteria for effective or ineffective performance in ministry. In the following studies, persistence is defined as completing seminary, serving for a certain length of time in ministry, or serving in ministry at the time of the study.

Assumptions common in this research are that 1) personality functioning is meaningfully related to occupational functioning and that 2) on the average people tend to enter and remain in environments that support their personality. 3) Yet a third assumption is that those who leave ministry will reveal psychological characteristics on the MMPI different than those who stay.
While measures of life satisfaction and job satisfaction have been found to be positively related in a meta-analysis by Tait, Padgett, & Baldwin (1989), the direction of causality is far from clear (Judge & Watanabe, 1993). Occupational stress in ministry has been shown to impact personality functioning (Blackmon, 1984; Beck, 1997), and individual psychological characteristics have been shown to influence the appraisal of job satisfaction (Judge & Locke, 1993; Sutherland & Cooper, 1996). While many professionals, including ministers, do tend to enter and stay in environments that support their personalities, ministers by definition are "set-apart" by ordination, to be "in the world, but not of the world" and often have a self-understanding of "call" that may motivate them to interact in an unsupportive environment with more finesse (Celmer & Winer, 1990).

Lee (1976) also raised issues concerning the assumption that there are measurable psychological differences between stayers and leavers in ministry. 1) Personality factors that correlate with persistence in ministry may not be the same factors that correlate with those who persists through seminary training. 2) Personality develops in interaction with environmental situations and may change over time. While basic personality structure has been found to be relatively stable (Costa & McCrae, 1994), personality consistency has been found to peak between the ages 50-70 rather than age 30 (Roberts and Friend-DelVecchia, in press, as reported in Carver and Scheier, 1999). Testing data over 5 years old would not reflect environmental influences on adult development during that time. 3) The final assumption often found in persistence research is that statistically significant differences are meaningful differences. A statistically significant difference of 3 to 4 points on an MMPI scale may have little meaning when both scores are in the normal range.
In the following research studies archival MMPI and demographic data were used to predict persistence of men in seminary (Baer & Moynihan, 1964; Banks et al., 1984; Stone, 1990) and the national ministry (Morse, 1962; Hook, 1992). The test and demographic data were obtained when the candidates entered seminary. Even though statistical techniques with greater discriminating power were used to separate groups on a combination of variables, results were modest, with few generalizations to other sample groups.

Baer and Moynihan (1964) examined MMPI scores of candidates for the Society of Jesus to determine personality correlates of persistence and nonpersistence through seminary. Only the K (Defensiveness) which was lower for Persisters and Schizophrenia scale (higher for Nonpersisters) were significantly different between the two groups. Applying a step-wise discriminant analysis, they found 4 scales - Masculinity/Femininity, Psychasthenia, Hypochondriasis, Hysteria - separated the two groups, but there were no significant chi-squares with the cross-validation sample. Baer and Moynihan commented that the failure of the discriminant analysis may have been in part due to working with a "grossly normal population" (p. 416).

Banks et al. (1984) examined MMPI and PRF scores for men who applied to a Roman Catholic religious order. After separating the group into four categories - Accepted/Rejected by a board decision and Persisters/Nonpersisters for 1-4 years in ministry, they found results indicating that age, MMPI scales +Schizophrenia and -Social Introversion and 5 PRF scales (+Affiliation, +Aggression, +Exhibitionism, +Harmavoidance, +Play) significantly discriminated between the accepted and rejected candidates. Persisters and Nonpersisters in ministry were best discriminated with the MMPI scales +Social Introversion, -Schizophrenia and -Psychasthenia plus 4 scales from the PRF (+Affiliation, -Dominance, -Nurturance, -Harmavoidance). Noting the paradox
in their results, they concluded it appeared that successful candidates in seminary who persevered in ministry needed to possess certain degrees of traits allowing them to be successful both as students and as priests.

Stone (1990) looked at persistence in seminary using MMPI scores for Protestant Masters of Divinity students. He divided the group into high, moderate, and low elevations on the MMPI. Forty-seven percent of the students in the elevated MMPI group did not graduate from seminary compared to 26% in the low MMPI group and 29% in a moderate MMPI group. The discriminant analyses correctly classified 68% of the group using MMPI scores and 12 scales of the Theological School Inventory.

Morse (1962) used archival MMPI scores to measure persistence in national ministers. Persisters differed significantly from Nonpersisters on +K (Defensiveness) and all clinical scales except Psychopathic Deviate. Cross-validation did not produce a significant multiple correlation coefficient, and Morse concluded the MMPI did not discriminate between Persisters and Nonpersisters for this group of ministers. The present study examines MMPI-2, demographic, and situational variables for both men and women who have undertaken career reassessment subsequent to having served in ministry for a period of time.

Hook (1992) examined predictors of persistence in national ministry with seminary graduates for the years 1978-80. He compared three research methodologies using archival MMPI scores obtained when the ministers entered seminary.

Using chi-square and univariate t tests, he found significant differences between persevering/nonpersevering groups on Previous Degree Earned and the MMPI scale Paranoia. Those who did not persevere scored significantly higher on Paranoia and were more likely to have a previous degree before entering seminary.
Then, Hook formed an average cumulative score from 7 MMPI scales following Stone (1989), to determine degree of psychopathology. There were no significant results on MMPI scales differentiating High, Moderate, and Low cumulative scores.

Finally, he performed a full-model discriminant analysis to determine if groupings of variables could predict persistence in ministry. The discriminant analysis predicted 76.1% of the Persisters, 63.6% of the Nonpersisters and 73.68% of the grouped cases, but the chi-square analysis did not reveal a significant difference between groups. MMPI scales -Paranoia, -Hysteria, -Schizophrenia, -Psychopathic Deviate, -Age, -L (Lie), -Hypomania, -Hypochondriasis, and +Social Introversion increased the prediction of Persisters over Nonpersisters in ministry.

The four most recent studies using archival MMPI scores with ministers to predict persistence and nonpersistence examined the following groups: Male and female Evangelical missionaries (Dillon, 1983) Southern Baptist missionaries (Reasoner, 1988), Southern Baptist foreign missionary couples (Sprinkle, 1989), and male and female foreign missionaries (Kyne, 1992). These studies reveal similarities and differences between the persisting foreign missionaries and the national ministers.

Dillon (1983) examined personality characteristics of evangelical foreign missionaries using archival MMPI scores and the demographic variables of persistence/nonpersistence, sex, age, educational experience, and the year the test was taken. Differences on mean scale scores between persevering and nonpersevering missionaries were scales -L (Lie), +F (Frequency), +Psychasthenia, and +Control. Persevering missionaries tended to be more worried, were more in control over symptoms, lied less but were more confused. Over time missionaries who did not persist had higher scaled scores on Schizophrenia and Depression. Unfortunately, the number of male and
female subjects was not reported in this study, but significant differences were found on scales F (Frequency), Depression, and Psychasthenia for gender.

Reasoner (1988) found no significantly discriminating MMPI scales. Marital status was the only significant F ratio. Single missionaries tended to resign slightly more frequently than married missionaries. The chi-square tests indicated that region of the world and age were significantly related to persistence/nonpersistence.

Sprinkle (1989) investigated missionary couples using clinical and empirical methods to predict attrition with MMPI scores. The most successful discriminant analysis, repeated with 5 different cross-validation subsamples, found a combined set of missionary husband and wife MMPI variables that "modestly" predicted persistence. They were -Social Introversion for husband and lower K (Defensiveness) and L (Lie) scores for the wife. Missionary husbands tended to be more extroverted while wives tended to be more naive, problem-denying and reported having less energy. In deciding between clinical vs. actuarial interpretation, Sprinkle concluded neither method alone adequately accounted for the missionary attrition rate although the predictive utility of clinical sorting based on missionary wife was "on par" with the results of the combined husband and wife discriminant analyses. Sprinkle noted that the results of the discriminant analyses were weakened by 1) the small number of nonpersevering couples in the study, 19 in total, and 2) the mission board practice of using the MMPI scores to screen-out candidates. As a consequence, applicants whose MMPI scores indicated greater distress had already been eliminated from the group.

Kyne (1992) examined MMPI validity, clinical and 66 secondary scales for a group of male and female applicants for overseas missions. He specifically investigated those scores indicating the subject may have difficulty dealing with interpersonal conflict and poor field performance.
For all subjects in this study, longevity in the foreign missionary field was predicted by mild elevations on Paranoia, Paranoia 3 Naivete, Social Introversion 3 Staid-Personal Rigidity and lower on AUT Authority Conflict. Male missionaries who persevered tended to also score higher on Scale K (Defensiveness), Hysteria 1-Denial of Social Anxiety, and Hypomania 1-Amorality while scoring lower on Schizophrenia 1-Social Alienation. Female missionaries who persevered tended to score lower on Psychopathic Deviate, Psychopathic Deviate 3-Social Imperturbability, St -Social Status, and higher on FEM-Feminine Interests, Paranoia 3-Naivete, and Social Introversion 1-Inferiority-Personal Discomfort.

The personality profile of a typical male missionary in this sample was someone who was individualistic, avoided risk, somewhat extroverted, blame projecting, and relatively invulnerable to assaults on his self-confidence. The typical female missionary in this sample was likely to be somewhat naive, trusting, optimistic, avoided assuming leadership roles, had traditional feminine interests, and was sensitive to criticism.

Kyne observed that the fact a particular missionary did not persevere overseas may not mean the individual lacked the personality characteristics to be successful in the field. He concluded persistence/nonpersistence was less related to the individual's personality profile and more related to the "fit" of the individual to the particular culture of the sending agency citing the statistic that one-third of the missionaries who left the sending agency were still in the field working with other organizations. This study also pointed out an interesting mean difference on Scale 6-Paranoia between foreign missionaries and national ministers. Persisting foreign missionaries were characterized by higher scores on Scale 6 in the Kyne study while persisting national ministers were characterized by lower scores on this scale, according to Hook (1992).
In summarizing the studies on persistence this research suggests that personality characteristics isolated from their organizational and situational context are often confusing and meaningless. Personality characteristics of Persisters in seminary (-Social Introversion and +Schizophrenia) and professional ministry (+Social Introversion, -Schizophrenia and -Psychasthenia) may not be the same (Banks et al, 1984). Characteristics of national ministers and foreign missionaries that predict persistence may be different. High scores on Paranoia tended to support persistence in missionaries (Kyne, 1992) while lower Paranoia scores supported persistence in national ministers (Hook, 1992). MMPI profiles of minister samples are heterogeneous and research has generally supported the conclusion of lower overall elevations as more predictive of persistence (Haight, 1980; Comer, 1983; Stone, 1989). Marital status, age, and a combination of husband and wife characteristics were reported by Sprinkle (1989) and Reasoner (1988) to distinguish Persisters in foreign ministry. A higher K (Defensiveness) scale predicted persevering male missionaries (Kyne, 1992) while a lower K scale predicted persevering female missionaries (Sprinkle, 1992) and male seminaryPersisters in the Society of Jesus (Baer & Moynihan, 1964).

Literature Review of Personality, Demographic, and Situational Factors Related to Persisting and Non-Persisting Ministers

*Age and Mid-Life Change.* The largest age group in the United States (42.7%) in 1990 was between 30-39 years old (Warr, 1994). By 2010 this group will be 50-59 and will be the largest age group in the population. Adult change and development with an aging population impacts all social and work environments.
The age-related patterns of development around mid-life (broadly defined between the ages of 35-54), which may be common to members of this culture, are frequently depicted as times of personal reevaluation, career transition, and/or emotional crises. While everyone does not follow the same life course, there appears to be a common core of psychosocial tasks that adults move through that follow a particular sequence and age progression. Levinson et al. (1979) described a mid-life transition that is theoretically consistent with patterns of dis-ease in ministry reported in surveys conducted in the late sixties and early seventies by Mills (1969) and Mills and Koval (1971).

The young adult at age 20 is becoming financially and emotionally independent in the Novice phase of adulthood according to Levinson's model. At age 30 the men included in his study were typically moving through an Age 30 Transition as they strived to realize their dreams and find mentors. A culminating or settling down phase followed through the later 30's. The age of 40 or perhaps beginning a few years earlier and lasting until about 45 marked a period called mid-life transition. During these years the men typically reevaluated their chosen life goals and career aspirations and reassessed relationships with parents, teenage children, and spouse. Those who went through this period productively were able to find satisfying outlets in people and ideas to which they could commit themselves. Those who did not risked becoming self-absorbed and stagnant. A man's life at 50 and 60 became a more creative and fulfilling time if he had successfully struggled with the earlier transition, according to Levinson.

Although the stage model Levinson devised is based on interviews with largely Euro-American, middle class and professional men that is not automatically generalizable to the larger population, research broadly supports (Caspi and Roberts, 1999) a consistent pattern of age-related developmental tasks across the adults years. Waskel and Phelps (1995), for example, studied life crises in women ages 30-60 and found Changes in Self to
be the most frequent category of crises event named by women across all age groups. Of
women in the 40-49 age group, 47.1% reported having experienced a moderate to severe
crisis, while 47% of women in the 50-60 age group did so.

In a survey sponsored by Midwest Career Development Service, Brushwyler
(1983) used an age framework suggested by the Levinson model to study Protestant male
ministers. He investigated what the differences were between younger (25-34), middle
(35-54), and older (55-65) clergy considering a career transition. He defined "mid-life"
broadly between the age of 35-54. This middle group of ministers generally described
themselves as being vaguely "discontent" (p. 54) and experiencing a mid-life "malaise."
By comparison, the younger ministers (25-34) acknowledged feelings of discontent but
related them to learning more about the ministry. Older ministers (55-65) tended to rank
discontent lower on their list of negative feelings. The majority of the clients to the center
at the time of his study were in their thirties and forties with a significant drop after age
55.

In a review of the literature on the aging worker, Sterns & Miklos (1995) found
large variations in abilities and functioning at all ages. Health was not a limiting factor in
employment for middle age or older workers. Only 10% of workers 45 and older could
not work due to chronic conditions. Schaie (1990) reported intellectual functioning in
most people remain stable well into the 70s and older. Only fluid intelligence, reaction
time, and working memory tend to show a negative relationship with age. Job
performance also did not generally decline with age except for work requiring heavy
physical labor. Osipow, Doty, & Spokane (1985) found older subjects in their study
reported decreasing vocational, psychological, physical, and interpersonal strain than
younger subjects. Older subjects also reported using greater recreational, self-care and
rational coping resources than younger ones.
Work related attitudes were more positive with increasing age (Sterns & Miklos, 1995; Warr, 1994). Older workers were found to prefer more responsibility and interesting work while younger workers preferred greater autonomy and social opportunities. Measures of intrinsic satisfaction also tended to be greater for older workers.

**MMPI and Age Related Personality Change.** Does the MMPI measure personality changes over time? When broad components of personality such as extraversion and neuroticism (anxiety, depression, and guilt) for example, are measured in cross-sectional studies, there is some evidence of decline with age. Costa and McCrae (1994) have argued the decline is the result of cohort characteristics citing their major longitudinal studies of personality using a variety of assessment instruments including the MMPI. They found patterns of stability over intervals of 30 years especially with subjects initially over the age of 30. More recently a meta-analysis by Roberts and Friend-DelVecchio (in press) and reported in Caspi and Roberts (1999) found stability coefficients on measures of personality factors tended to increase as the age of the subjects increased, and they tended to decrease as the time interval between observations increases. They found support for the conclusion that consistency peaks between ages 50-70. Men and women showed the same patterns of personality consistency across the life span.

Warr (1994) reported the pattern of personality constructs becomes mixed with age with some studies reporting increases on scales, some decreases, and others no change. Colligan, Osborne, Swenson, and Offord (1983); Colligan and Offord (1992); Aaronson, Dent, Webb, and Kline (1996); and Schenkenberg, Gottfredson, and Christensen (1984) examined the variable of age with the MMPI and MMPI-2 and found differences across large samples of adult age groups.
Although differences may be due to cohort effects, together the studies suggest that certain developmental transitions occur in adults.

Colligan and associates at the Mayo Clinic (1983; 1992) undertook a large scale investigation in the 1980's with 1,308 adolescents and adults ages 13 to 99 years old. They found significant age-related differences in response patterns from adolescence through old age. For both sexes, scores increased with age for scales L (Lie), Hypochondriasis, Depression, and Social Introversion while there were noticeable declines in scores for Psychopathic Deviate, Paranoia, Psychasthenia, Schizophrenia, and Hypomania.

Schenkenberg et al. (1984) examined MMPI scaled scores of 1,189 men and women ages 20 to 64 who were applying for psychiatric treatment. Results found age group differences typically divided between higher and lower groups at ages 35 and 45.

Aaronson et al. (1996) examined critical items on the MMPI-2 in relation to age. Results indicated a significant drop in the number of endorsed critical items and increases in scales L (Lie) and K (Defensiveness) with age.

Koeppel, Bolla-Wilson, and Bleecker (1989) and Finn (1989) reported more modest differences across age groups in the samples they studied and attributed differences to age/cohort interaction. Koeppel et al. (1989) did not find typical age related elevations on the neurotic triad (Hypochondriasis, Depression, Hysteria) nor on scales Masculinity/Femininity, Paranoia, Psychasthenia, and Social Introversion. Men scored lower on Psychopathic Deviate, Hypomania, and Depression with age, while women in this sample decreased significantly only on scale Psychopathic Deviate. Finn (1989) investigated the stability of personality characteristics among older and younger adults over a 30 year period. The results support the development of personality traits as following a "positively sloped, negatively accelerating function" (p. 816) with lower retest
stability among younger age groups. Religious fundamentalism and Delinquency showed high stability in both cohort/age groups while Constraint tended to show greater stability in middle to late adulthood.

**Mid-Career Changes in Organizations.** A mid-life career change appears to be a highly complex event that includes developmental (life stage) changes as well as individual differences in person and environment interaction. The developmental period may not be a crisis at all but a move to greater self-actualization of the self-concept (Super, 1963) in a complex interaction of person and environment.

Noting that many educated men and women now want to return to school as part of the process of changing careers in mid-life, Hiestand (1971) cited a number of sociological transformations in work and family life that have allowed this to happen. More professional work requiring additional education is now available in our culture, children are raised and out of the home earlier so that parents have more time to pursue their interests, and earlier retirements, more disposable income and the desire to lead more productive lives combined to bring about a large influx of mid-life people back to universities and training centers. He noted several patterns to this phenomena. Although it happens that a person may move from one field to another fundamentally different one, a more typical pattern is that a person may want to upgrade his/her skills by acquiring additional education, move into a related field, or even work at one job while building up experience and training in a second one.

In the latter part of the 20th century, the adult student, male and female, has become the more typical student on many seminary campuses. The average age of incoming students at two mid-west seminaries are between 30-35. This phenomena is not uncommon for Protestant seminaries, generally, who are seeing many second and third career students entering professional ministry.
Three researchers who have studied the phenomena of human motivation, job satisfaction, and mid-career change in organizations are Herzberg (1975), Neapolitan (1980), and Kanchier & Unruh (1988). Together their research suggests that ministers expressing dissatisfaction with ministry and thinking about changing careers may be motivated by a search for greater intrinsic satisfaction, may not change careers if obstacles are too great but may continue to be dissatisfied, and need to possess a belief in personal control of their future in order to change.

Taking exception to the common assumption that employees can best be motivated to do their job with externally imposed negative or positive "kicks in the pants", Herzberg argued that employees will only be motivated to work harder if they have challenging work for which they can assume responsibility. Drawing on a number of studies with a variety of different populations using his motivation-hygiene theory, he suggested that the factors involved in creating job satisfaction are distinct and separate from the factors that lead to job dissatisfaction (p. 366).

Motivating factors are intrinsic to the job and are the primary cause of job satisfaction. They include: achievement, recognition for achievement, the work itself, responsibility, and advancement. Hygiene or dissatisfaction-avoidance factors are extrinsic to the job and include: company policy and administration, supervision, interpersonal relationships, working conditions, salary, status, and security. While job satisfaction and dissatisfaction are separate and distinct, yet the two factors do influence each other. Job satisfiers, identified as 81% of Herzberg's motivators, do impact job dissatisfaction and job dissatisfiers, identified as 69% of the hygiene factors, affect job satisfaction.

Neapolitan (1980) interviewed 25 people who had made voluntary and radical occupational mid-career changes and compared/contrasted them with nonchangers in
matched occupations. He found four factors important to the decision to change: 1) Factors associated with the first occupation; 2) factors associated with the second occupation; 3) obstacles to making a change, and 4) personal factors in the perception and reaction to obstacles.

All 25 changers stated they were dissatisfied with their first occupation. Twenty-three of them had primarily an intrinsic orientations toward their work. In addition, eight of the nine dissatisfied nonchangers also had an intrinsic orientation. Of the 16 remaining nonchangers, they had either an extrinsic orientation toward work or were intrinsically satisfied already. All 25 changers perceived their second career choices to be more congruent with their work orientations. Five of the nine dissatisfied nonchangers also had similar perceptions, but chose not to make the change. The remaining four nonchangers did not perceive an attractive alternative. Thus, occupational dissatisfaction and a perceived alternative do not always lead to a career change.

The major obstacle to change that all changers and dissatisfied nonchangers faced was financial. Having family dependents were also obstacles to change for dissatisfied nonchangers. Several changers delayed their move into the alternative occupation until they were free from family obligations.

At the same time, eight of the changers had no one to support their change, had families to support and experienced hardship and income loss making the shift in career. The difference between these changers and those hindered by obstacles appeared to be in the perception of those obstacles and their response to them. The changers had a greater sense of control of their future and belief they could accomplish their goals. The nine dissatisfied nonchangers believed just the opposite. They believed there were forces beyond their control which made the risk of failure too great, and they were doubtful of their ability to succeed.
Neapolitan concluded that contrary to popular thinking, career changers were not unstable people but were making rational moves from a dissatisfactory situation into what they perceived as a more satisfactory one. All changers reported increased work and life satisfaction following the move (p. 224).

Research by Kanchier and Unruh (1988) suggested job changers may have psychological characteristics as well as life experiences different from nonchangers. They examined transition periods of the life cycle and the disengagement stages of occupational change to determine if they were interrelated for a group of managers and former managers. Job changers reported significantly more dissatisfaction with their work and also differed from nonchangers in length of tenure and number of job changes. A larger percentage of job changers in the Age-30 and Mid-Life Transition categories reported undergoing a critical self-appraisal of values and career goals although nonchangers also reported changes in personality, values, and goals. More job changers reported having recently experienced a traumatic event than nonchangers and that the experience precipitated their self-appraisal. Changers also reported more intrinsic work motivation and saw their work as a means for self-expression and growth. Nonchangers reported more extrinsic work motivation and were generally more concerned with security, power, position, and salary.

In summary, age or life-stage is a related factor in mid-career changes in this culture. With increasing age, intrinsic work motivations become more important and in the absence of a physical decline, work-related attitudes tend to become more positive. Job satisfaction for the mid-life worker tends to fluctuate between the earlier extrinsically motivated younger worker and the more intrinsically motivated older worker. Within a culture that permits greater self-development for adults,
the mid-life transition presents opportunities for self-appraisal, greater self-actualization, and a change in career for those who report intolerable levels of job stress.

_The Role of Personality in Job Stress._ Depression, stress, and burnout may be a hazard of the ministry requiring clergy to take better care of themselves in order to survive, say Blackmon and Hart (1990). They reported finding 12% of surveyed ministers "always" or "often" felt depressed in their work. Forty percent reported feeling more depressed on the day after preaching and worship. Because ministry is an adrenaline demanding profession calling for constant public visibility, ministers can find it difficult to relax and restore physiological equilibrium after an intense period of adrenaline over-demand.

What is job stress and the more serious problem of burnout and what role does personality play in perceptions of stress? Stress researchers Lazarus and Folkman (1984) proposed a transactionalist theory of stress in which an individual's appraisal of stress may be more important to well-being than number of life events or hassles. Appraisal takes a primary and a secondary form according to this model. In primary appraisal the person evaluates whether or not a threat exists. In secondary appraisal the person assesses options for coping. The physiological, cognitive, and emotional stress response results when a perceived threat is appraised as exceeding the person's resources. Individual appraisal of the person-environment relationship is influenced by each person's characteristics such as motivation, beliefs, recognition of coping resources, problem-solving skills, health, and energy (p. 211).

Burnout is distinctively different from stress. Cherniss (1980) defined burnout as a "transactional process" in which job stress, worker strain, and psychological accomodation leads a formerly committed person to disengage from his or her work. Burnout is a psychological response to an "intolerable work situation" (p. 18).
Chemiss described five personality characteristics found to influence a person's appraisal and response to stress: Neurotic anxiety, the "Type A" syndrome, locus of control, flexibility, and introversion. A person high in neurotic anxiety tends to exhibit excessive and conflicting motivation, greater emotionality and instability, lower self-esteem and over concern with the approval of others. Individuals exhibiting the Type A syndrome are prone to a striving, competitive, time-pressured lifestyle and tend to experience more stress-related illnesses especially coronary heart disease. Locus of control refers to the degree individuals believe they control their lives. Persons who exhibit an internal locus of control tend to believe they control their lives and failure results from the lack of will or ability. People with a more external locus of control believe their lives are at the mercy of external forces beyond their control. Flexibility refers to the tendency of individuals to be more susceptible to stress in that they experience more role conflict and have difficulty saying "no." Introverts tend to experience more distress due to their tendency to withdraw from situations that are high in conflict and stress.

Job Stress and personality assessment has been explored with white collar professionals in the United Kingdom. Cooper and Marshall (1980) found personality characteristics played a significant role in reported job stress among groups of dentists, nurses, policemen, and teachers. Cooper and associates have continued to examine the mediating role of personality characteristics in reports of job stress and physical health in more recent studies. Cooper, Kirkcaldy, and Brown (1994) found Type A behavior and job stress had a direct causal impact on physical ill-health for 500 senior British police officers. Bogg and Cooper (1995) found U.K. civil servants significantly different on Type A behavior and locus of control. Specifically, civil servants reported lower Type A behavior patterns and greater externality in locus of control as well as overall poorer
mental and physical health. Rout, Cooper, and Rout (1996) found emotional involvement and Type A behavior were predictive of lack of mental well-being for 414 British general practitioners.

Only two studies have used the MMPI to address issues of personality and stress with ministers. Headley (1992) found no MMPI scales related to burnout for men and women ministers. Celmer and Winer (1990) found nuns reported less job satisfaction than two groups of priests yet were significantly less dysfunctional psychologically on scales Hypochondriasis, Depression, and Hysteria (the neurotic triad).

Research on stress and burnout with other professional groups suggests personality characteristics as measured by the MMPI are related to stress and how individuals handle stressful life events. Beutler, Nussbaum, and Meredith (1988) studied 25 police officers who were evaluated at time of recruitment and again 2 years later using the MMPI. Four years later eleven officers participated in a second follow-up with the MMPI. Scaled scores showed significant changes over time suggesting increased somatic symptoms, anxiety, and increased vulnerability to alcohol.

McCranie and Brandsma (1988) investigated whether burnout among physicians is associated with personality tendencies that predate entrance into medical school. They used a sample of 440 physicians who had taken the MMPI at the time they entered medical school. This group was contacted again 25 years later and administered the Tedium Scale. Scales Depression, Psychasthenia, and Social Introversion were positively associated with burnout while Hysteria was negatively correlated with burnout. Neither demographic or practice characteristics were associated with burnout scores.

Other studies have found no relationship between MMPI scores and reports of burnout or job dissatisfaction. MacMillan and Valliant (1987) found no significant scaled scores on the MMPI in relationship to occupational stress for 25 female secretaries.
Fawzy, Wellisch, Pasnau, and Leibowitz (1983) found no significant scaled scores on the MMPI among 5 groups of nurses in relationship to job satisfaction, locus of control, and the Work Environment Scale.

This research suggests that the MMPI has been used successfully in several studies to measure occupational stress for different professional groups of workers including religious professionals. Understanding the personality characteristics of ministers could be valuable in understanding the how stress may influence a minister's decision to stay or leave ministry.

*Surveys of Burnout, Career Change, and Job Stress in Ministry.* Since the late 1960s surveys of ministers have examined nearly every facet of the professional and private lives of this group of people. A series of studies by Mills (1969), Mills and Koval (1971), and Jud, Mills, and Burch (1970) surveyed large samples of male ministers from mainline denominations and asked the questions -- what were the stresses associated with ministry and what stresses were leading some of them to make a career change? It may be remembered these studies took place as this culture was experiencing dramatic changes in racial, sex, economic and social roles. Church organizations and their leadership were not immune from the changes taking place in the wider society. Unlike the studies with U.K. professional groups and research on occupational stress using the MMPI, personality characteristics were not measured in these studies with the exception of Mills (1969).

Mills (1969) examined why a group of 60 Presbyterian pastors made the decision to change congregations, move into graduate study, a specialized ministry or secular work. After conducting an extensive personal interview and obtaining a personality profile and health assessment for each subject, he found significant differences among the 4 groups especially the group identified as Seculars. Those who moved into secular work from a parish pastorate were characterized as having a lower salary, shorter pastorates,
lower task enjoyment of organizational and pastoral duties, lower overall satisfaction, greater alienation from congregational leaders, fellow ministers, and spouse, had more serious church conflicts, marital crisis, health problems, and a sense of hopelessness. Age also was found to be a differentiating variable for those making a career change. The decision to move to secular work for this group of ministers tended to be neither a young man's nor a mature man's decision but "a phenomenon" (p. 8) typically occurring within the first 20 years of a ministerial career. Mills pointed to two major inadequacies in the research data - the role of personality as measured by the Guilford-Zimmerman Temperament Survey and the impact of health concerns on career decisions. While no personality factors were found to characterize group differences, he concluded that environmental strain along with psychological limitations were an "important causal nexus" (p. 20) that led to career changes.

Although stress in ministry was the major focus of a study by Mills and Koval (1971), the age of the 4,665 male Protestant clergy from 21 denominations showed small but consistent effects on reported stress levels. Stress tended to move from higher levels with younger men to lower levels in older men due to two main factors - personal finances and feelings of futility with the church's work. Overall, age was the single most predictive factor of stress among this large sample of Protestant ministers.

Seventy-five percent of the respondents to the Mills and Koval study reported experiencing periods of stress at some time in their ministry. Time patterns were fairly consistent across denominations with 42% of reported stress occurring in the first 5 years of ministry followed by a sharp decrease until the 10th and 11th years and again at the 20th year. This pattern corresponds to the late 30s and late 40s for those ministers following the traditional career path. The pattern of increases and drop-offs were different for the various denominations but similar enough to suggest "periodicity" (p. 11) in stress.
Mills and Koval noted that years of service were not perfectly correlated with age, but the pattern of stress later in the ministerial career generally corresponded to the period of midlife.

This study also indicated how the impact of stress related to a "pervasive" psychological reaction against the local ministry, the church, and the desire to leave the profession. Job dissatisfaction and a desire to leave ministry correlated with general stress, occupational stress, need for more money and futility or ineffectiveness of church work.

In a study of male ex-pastors Jud, Mills, and Burch (1970) compared 250 United Church of Christ pastors with 230 who left the ministry. The overall finding was that pastors and ex-pastors differed very little on the measures surveyed. Yet ex-pastors showed a stronger pattern of early career job changes, tended to be better educated, more interested in community activities and less satisfied with the typical ministerial roles of preaching, calling on the sick, and facilitating growth in faith. They also had less hope of making a difference in parish ministry, were more likely to be under thirty, were less connected to church and denominational networks, and had more marital problems. Reasons for making a career change varied, with no reason accounting for the majority of moves. Reasons receiving the greatest number of endorsements included a sense of personal and professional inadequacy, the need to relocate, marital and family problems, and general dissatisfaction with the work. After making a career move out of ministry, this group of male ex-pastors reported receiving higher earnings, being more relaxed, and having an improved family situation.

Women, who have been entering the Protestant ministry in increasing numbers since 1970, have often found the environment unwelcoming and unsupportive according to two studies. These surveys of women in ministry addressed the question of acceptance...
of women as professionals by seminary faculty, denomination executives, other clergy, and laity (Carroll, Hargrove, & Lummis, 1983; Lehman, 1985). These studies reported women are finding entry level positions as ministers similar to men, but second and third moves to different congregations have been more problematic. Congregations who have experienced a woman minister typically are in favor of women generally serving in the capacity of minister, yet frequently report a "preference" for a male minister for their congregation. Often, it is the more affluent churches who are less willing to call a woman minister. Women are typically experiencing success in their work and getting along with parishioners in similar proportions as men, and yet are reporting more stress according to Lehman (1985). Overall, the studies describe ministry as "difficult" for women. Those who left ministry were said to do so because opportunities for advancement were limited or nonexistent, but the surveys did not address the question of how many women were dissatisfied enough to leave.

Smaller studies on stress in ministry have been inconclusive in assessing job stress. As a whole they have been burdened by cross-sectional research designs which have not identified short and long term outcomes and have relied exclusively on self-report measures which have been found to inflate covariation values up to 33% in recent occupational health studies (Kinicki & McKee, 1996). Together they suggest job stress is either not a problem for most ministers or it may be a hidden problem in a profession that relies heavily on public image.

Malony (1988) found little evidence of reported stress in three separate studies of minister groups who were Roman Catholic and Protestant. The first two groups reported less stress and strain and greater personal resources than the general population. At the same time clergy in the second sample of 596 men and women ministers reported greater role overload, role ambiguity and role responsibility, greater interpersonal strain and less
recreational and rational-cognitive resources than the general population. The third study of Protestant ministers in Southern California reported comparable results to the other two, but also reported a significant difference between the ministers' and the members' expectations of what they should be doing.

Rayburn, Richmond and Rogers (1986) looked at stress with religious leaders - a group of 250 priests, male and female ministers, seminarians, nuns, and brothers. Men overall scored higher than women on role overload and role ambiguity, yet the total group of religious leaders reported fewer problems, better psychological adjustment and a more positive attitude towards their work in comparison to the general population. When ANOVAS were performed, male and female ministers had the highest overall occupational, environment stress, and vocational strain and next to the lowest scores in overall personal resources of the five groups included in the study. Rayburn et al. suggest the tendency of religious leaders to deny weakness and adopt a "Rock-of-Gibraltar" image may set them up for greater loneliness and vulnerability to slip off the pedestal (p. 544).

Beck (1997) confirmed the findings of Malony and Rayburn et al. in a study investigating the effects of number of roles, time spent in different roles and demographic variables among a group of Iowa Lutheran clergy. He found the pastors reported job satisfaction and burnout levels comparable to people in the general population and that age of subject was the strongest variable in the study. Younger pastors reported greater levels of job dissatisfaction and levels of burnout than older pastors. The importance of age confirms the Mills and Koval survey three decades earlier which found the early years of ministry to be the most stressful.

Resurrecting personality assessment as an investigative tool with ministers, Rodgerson (1995) used the NEO-FFI, situational variables, and religious problem-solving in a study predicting burnout with 500 American Baptist clergy. Personality variables
contributed the most in regression analyses predicting burnout - a general job dysphoria composed of broad-based constructs of controllability and depressive affect. Situational variables, while not unimportant, explained more of the variance on the Depersonalization scale of the Maslach Burnout Inventory. He concluded that pastors in this study were experiencing less burnout than the normal population. He suggested several reasons for this finding in that those ministers prone to burnout would have already left the ministry, learned ways of coping or had already worked through burnout earlier in their careers. They may have also self-selected out of participating in the study.

Willette (1997) surveyed career changing Protestant pastors during mid- and later-life transitions. Sixty-six nonchangers and 40 changers completed questionnaires. This study examined several factors including job experience, income, how career decisions were made, locus of control, obstacles to change, family and work relationships, stress, relationships of life and job satisfaction, and self-image. Factors involved in career change included church board relationships, family life relationships, stress related to marriage and perceived locus of control. Major obstacles to making a career change were financial, number of commitments and the perceived need for more education. Subsequent to making a career change, the career changers reported improved work and family relationships, better physical health, less stress in the marriage, and increased income. Fully, 35% of 34 nonchanging pastors, who had indicated they had considered changing careers, reported they had very seriously considered it. Differences in self-confidence and locus of control were found between these nonchanging pastors and those who changed careers.

In summary, certain types of stress as well as accumulated amounts of stress may lead some ministers to consider a career change (Jud, Mills, & Burch, 1970; Willette, 1997). The research also suggests their may be others who are equally dissatisfied yet
choose not to change careers (Mills & Koval, 1971; Daniel & Rogers, 1981; Willette, 1997). Age of the minister was a strong variable predicting stress in studies by Mills, 1969; Mills & Koval, 1971; and Beck, 1997), and time spent working (Daniel & Rogers, 1981; Beck, 1997). Particular personality characteristics may also lead to greater vulnerability to stress and burnout such as neurotic anxiety, Type A syndrome, locus of control, flexibility, and introversion (Cherniss, 1980; Malony, 1988; Rayburn, Richmond, & Rogers, 1986; Celmer & Winer, 1990; Rodgerson, 1995; Willette, 1997). Surveys of ministers attempting to document the experience of stress are inconclusive. On the one hand, ministers generally acknowledge feelings of success in what they are doing, less stress and strain than the general population, and having the personal and vocational resources to do the work (Malony, 1988; Headley, 1992; Rayburn, Richmond, & Rogers, 1986; Beck, 1997). On the other hand, ministry must take place within an environment potentially more stressful than many workplaces (Daniel & Rogers, 1981; Carroll et al., 1983; Goetz, 1996). For example, there may be little social support for the minister and his/her family, many demands made on time and personal resources, and the pressure to be publically visible and accountable to not only a congregation but a community (Mills, 1969; Mills & Koval, 1971; Lehman, 1985; Beck, 1997). Ministers may be understandably guarded about admitting problems outside a close circle of family and friends (Jud, Mills & Burch, 1970; Rayburn et al., 1986), yet do experience emotional exhaustion (Headley, 1992), role conflict and ambiguity (Malony, 1988), discrimination, little financial rewards and opportunities for advancement (Carroll et al., 1983; Lehman, 1985), and significant drains on their personal and professional resources (Rayburn, Richmond, & Rogers, 1986; Willette, 1997).
This study will examine factors that distinguish ministers who stay in ministry and those who make the decision to change careers. The independent variables are the 13 validity and clinical scales of the MMPI-2, Age, Sex, Level of Education, Marital Status, Referral Source, Threat of Involuntary Termination, Counselor’s Career Recommendation.

Research Support for Variable Selection

1. Research with ministers examining personality characteristics using the MMPI validity and clinical scales have a long history (Rouse and Butcher, 1995). Personality characteristics have resurfaced as variables of interest in recent stress literature and were noted in two recent studies of ministers by Rodgerson (1995) and Willette (1997). Research with ministers using the MMPI-2 validity and clinical scales estimates equivalency for the two instruments (Van Epp, 1996).


3. Studies of women in ministry have examined job stress (Rayburn, Richmond, & Rogers (1986) and the environmental pressures (Carroll et al., 1983; Lehman, 1985) of being women in a nontraditional role. No studies have examined personality, demographic and situational factors of women who make the decision to leave ministry.

4. A higher level of education for Nonpersisting ministers has been found in the following studies: Hook, 1992; Jud, Mills, & Burch, 1970; Willette, 1997.
5. Marital Status, whether married, divorced, or single, was found to distinguish between Persisters and Nonpersisters and men and women in the following studies: Reasoner, 1988; Sprinkle, 1989; Carroll, Hargrove, & Lummis, 1983. Male Nonpersisters were significantly more likely to have experienced divorce in Mills, 1969; Jud, Mills, & Burch, 1971; Willette, 1997.

6. Situational variables indicating stress as a precipitating factor in career change was found in the following research: Mills, 1969; Jud, Mills, & Burch, 1971; Willette, 1997.

7. The Counselor's Career Recommendation was included as a measure of clinical judgment which was found to correspond with Church Board decisions (.40) in Haight (1980), Comer (1983). A combination of clinical and actuarial judgments distinguished Persisters and Nonpersisters in Lachar (1974) and Sprinkle (1989).
CHAPTER 3

METHODS

The methods used to analyze the data are presented in Chapter Three. The research setting and sample are described in the first section. In the second section the Minnesota Multiphasic Personality Inventory - 2, the assessment instrument used, is described. In the third section the research design and the statistical procedures used to test the hypotheses in the present study are described.

Research Setting and Sample

Research Setting. The Midwest Career Development Service (MCDS) is a resource center formed by an ecumenical group of church professionals for the purpose of developing career and life planning for seminarians and professional church workers. The center has three locations - Columbus, Ohio; Chicago, Illinois; and Kansas City, Kansas, and has worked with over 12,000 persons since it opened in 1969. A typical client of the center may be someone who is considering work or is presently working as a professional in the church and experiences the need for career reassessment.

Clients of MCDS who are professional church workers typically participate in a two and a half day program. Prior to the first day, clients may fill out an autobiographical form and several of the assessment instruments. After a brief orientation and overview of the program on the first day, clients meet with a counselor to establish goals for the program. The client then spends the remainder of the first day completing the assessment
instruments which consist of subjective and objective personality, vocational and intelligence inventories - Minnesota Multiphasic Personality Inventory (MMPI-2), Strong Interest Inventory (SII), Myers-Briggs Type Inventory (MBTI), Personality Research Form (PRF), Sentence Completion Form, and other assessment instruments deemed appropriate for the individual client. The morning of the second day is usually spent completing the testing and meeting with the clinical psychologist who focuses on the interpretation of the personality inventories. During the afternoon of the second day, the client again meets with the counselor for test interpretation. The third day is spent integrating the experience and focusing on what may be the implications or next steps to be taken. Typically, a client will not receive therapy at the center but recommendations for counseling are often made. No other follow-up is done. The two and a half day program is closely followed with some variation by individual counselors at the three centers. Following the program, the counselor fills out a research form on each client including test data, demographics, and impressions.

The present researcher was granted access to the MCDS data for this study by a written agreement with the director, Rev. Jay Matthews in 1994. Subsequently, when the decision was made to use the MMPI-2 to investigate persistence and nonpersistence behaviors with the sample of ministers from 1990-1994, Rev. Matthews again asked for and received permission from the Board to use the MCDS database. The denominational roster lists were purchased by the present researcher and delivered to the MCDS office where they are currently on file. MCDS employees matched the confidential names from their database to the names listed on the denominational roster lists. The present researcher has not had access to confidential information from MCDS files.

**Sample.** Subjects of this study were male (454) and female (125) clients of MCDS during the years 1990-1994 who were professional church workers presently
serving in one of eight Protestant denominations - the American Baptist Church, the Evangelical Lutheran Church in America, the United Methodist Church, the United Church of Christ, the Presbyterian Church U.S.A., the Disciples of Christ Church, the Episcopal Church, and the Church of the Brethren. The ministers were either self-referred or referred by denominational executives, committees, seminaries, psychologists, counselors, or other clergy. For this study client information was taken from the Minnesota Multiphasic Personality Inventory - 2 (MMPI-2) validity and clinical scores and a biographical interview. Subsequently, the K-corrected T scores for the three validity and ten clinical scales of the MMPI-2 as well as client demographic information were recorded on a computer file under a coded identification number to ensure confidentiality.

The present researcher decided to study Professional Church Workers male and female using the Minnesota Multiphasic Personality Inventory - 2. Professional Church Workers from 1990-1994 were chosen as subjects for this study because they were the first clients to take the MMPI-2 personality assessment instrument. The years 1990-1994 were chosen because the clients who came to the center during that time provided an adequate number of subjects for the statistical analysis. The decision to gather persistence/nonpersistence information from 1996 denominational roster lists was made in order to allow one year's time elapse after assessment of 1994 clients and a subsequent decision to stay or leave ministry. It is understood that decisions to stay or leave a profession may take a much longer time.

Minnesota Multiphasic Personality Inventory (MMPI-2)

Instrumentation. The Minnesota Multiphasic Personality Inventory (MMPI-2) is the personality assessment instrument used in the present study. The subjects were
administered the test on the first or second day of their career assessment program at MCDS. It is a 567 item True/False paper and pencil test that has recently (1989) undergone restandardization with implications for profile interpretation with ministers. The test was computer scored using the Microtest Q Assessment System.

The Restandardization Project -- Beginning with its publication in 1943, the MMPI became a popularly used clinical and vocational assessment tool. It became apparent over the years that certain test items as well as the normal criterion group needed revising. The Restandardization Project, begun in 1982 with the appointment of James Butcher, Auke Tellegen, W. Grant Dahlstrom and John Graham, chose as their goals to obtain a contemporary normative criterion group and revise the MMPI test items in such a way as to preserve continuity with the original MMPI validity and clinical scales (Archer, 1992) and with the 50 years of research that had validated its use in many different situations.

Archer (1992) summarized the differences between the original and revised MMPI-2 test items as follows: Total length is nearly the same - 566 items on the MMPI to 567 items on the MMPI-2 although numerous changes have occurred at the item level; 84% of the MMPI appears in the MMPI-2 in modified or original form; items reworded were deemed inappropriate due to obsolete or offensive language; 90 items were deleted 13 of which came from the validity or clinical scales - 4 for F, 1 for Hy, 3 for Pd, 4 for Mf, and 1 for Si; the validity and clinical scales were carried over relatively unchanged to the MMPI-2 and the addition of the 107 new items are found on the latter half of the test; no revision was made on the K-corrected weights; computer interpretations and scoring keys exist for 18 supplementary scales, 15 content scales, the Harris-Lingoes Subscales, and Subtle-Obvious Subscales, plus several new validity scales such as the F Back (Fb), Variable Response Inconsistency Scale (VRIN), True Response Inconsistency Scale (TRIN) and Superlative Scale (S) (p. 559).
The MMPI-2, published in 1989, is based on a new normative sample consisting of 2,600 men and women between the ages of 18 and 84. Effort was directed to making the sample as representative as possible to the United States population according to the 1980 census. Seven sites were selected from around the country for data collection (Minnesota, Ohio, North Carolina, Pennsylvania, California, Washington and Virginia). People were contacted by newspaper ads and telephone directories and paid to participate. The MMPI-2 normative sample compares favorably to the 1980 population census on age, marital status, and ethnic group participation but is skewed in favor of people with higher education (mean educational level of original sample was 8th grade compared to 14.72 mean educational level of the MMPI-2 normative group) and more diverse in terms of socio-economic level, ethnic group membership, and residence. One disadvantage will be with the interpretation of test scores from lower socioeconomic status levels (Archer, 1992). Unlike the first normal group this sample also included 3% men and 6% women who were under treatment for psychological problems.

Several early differences between the MMPI and the MMPI-2 which have come to light may be significant for its use with clergy. First, response patterns differ between the two instruments. Standard T-score elevations are typically lower on the MMPI-2 which is reflected in the lowering of the clinical range from \( T = 70 \) to \( T = 65 \) on the MMPI-2 scoring sheet. Archer (1992) suggested that the differences are not from scale changes but "may reflect long-standing problems in the original MMPI norms" (p. 560). This could mean that clergy scaled scores may reflect less pathology than was typical in the past.

Two additional test differences should be mentioned in regard to interpretation. There is controversy over the degree of congruence between high point codes on the two tests, and early research indicates that congruence for males is 70% and for females is
65% when the high points are the most elevated scales regardless of degree of elevation. Butcher (1994) reported that when 2 point code type elevations were at least 5 T-score points different from the second and third most elevated scores, the congruence rate increased to 81.6% for men and 94.3% for women. The consensus among MMPI researchers is that test results reported using the original MMPI cannot automatically be generalized to the MMPI-2. Test users can make use of conversion tables provided in the manual to show MMPI and MMPI-2 score equivalents.

Chojnacki (1992) investigated the comparability of the MMPI and MMPI-2 with undergraduate students in introductory psychology classes and found that changes occurred in T scores for the student sample. On average, across the 10 clinical scales 8-12 T score points in variance are added when going from the MMPI to MMPI-2. The variance was concentrated primarily on Scales L, Mf, and Sc for males. Suspected sources for the variance between the MMPI and MMPI-2 could be the item changes and/or the changes in the new normative group. Although his results indicted a large degree of consistency between the two instruments, Chojnacki suggested further studies are needed with different populations. Van Epp (1996) examined MMPI and MMPI-2 scores for a group of male ministers who were undertaking career assessment and found the scaled scores to be comparable.

The third area of difference that is significant for test users is the change from linear T-scores on the MMPI to uniform T-scores on the MMPI-2. On the original MMPI no effort was made to have equivalent T-scores across scales. Uniform T-scores on the MMPI-2 represent composite or averaged linear T-scores which serve to standardize the percentile equivalents represented by a given T-score across MMPI-2 scales. The effect of this standardization is to reduce the skewness of scales Hysteria, Psychasthenia, and Schizophrenia but increase the skewness for scales.
Hypochondriasis, Psychopathic Deviate, Paranoia, and Hypomania. Nichols (1992) estimated this would have little impact on most new scale distributions.

In a comment on religious affiliation and original MMPI test items, Dahlstrom, Welsh, and Dahlstrom (1972) found "little dependable evidence" (p. 158) that scores varied depending on membership in any formal religious group. Nineteen items are related to religious attitudes on the original MMPI with Scale F (Frequency) having 8 of those items, Depression having 5, Masculinity/Femininity having 3, and Social Introversion having 2. The MMPI-2 Restandardization Committee revised, deleted or reworded all items concerning religious attitudes in order to eliminate language deemed offensive and biased. Dahlstrom, Welsh, and Dahlstrom (1972) reported there is more of a relationship between religious practices and behaviors on the scaled scores than membership in any particular organized group. For example, subjects who reported deep religious beliefs typically scored lower on Depression, whereas test subjects who were concerned with prohibitions and taboos of religious practice tended to score higher on anxiety, guilt and tensions (p. 159).

An important clinical issue in regard to using the MMPI and MMPI-2 with normal populations for vocational assessment is how overly defensive profiles should be interpreted. Job applicants in general and entering seminarians in particular tend to present "overly favorable pictures" of themselves on the MMPI in response to the environmental pressure. Butcher (1994) recommended interpreting any T-scores above the clinical range (T = 70 or T = 65) as indicative of psychological problems because of the overall defensiveness in the profile. Kunce and Anderson (1976) suggested that scores in the normal range typically reflected more positive characteristics, but Graham and McCord (1982) concluded that the normal range profile can be
interpreted using the same strategy used for clinical subjects except extreme interpretations of symptoms and behaviors should be modified or deleted.

**Scale Description.** Historically, the interpretation of elevations on Masculinity/Femininity and K (Defensiveness) were problematic with clergy and seminarian populations. More recently, Greene (1980) and Graham, (1987) acknowledged that modestly elevated Mf and K scores are not "deviant" among those in the religious profession but the norm for college-educated groups. The following validity and clinical scale interpretations are for moderately elevated scales and follow the standard descriptions as presented by Graham, 1987, 1993; Butcher and Williams, 1992; Dahlstrom, Welsh, and Dahlstrom, 1972; Greene, 1991.

**L Scale (Lie)** The L scale was constructed to detect deliberate attempts by test takers to present themselves in a favorable light. The 15 items of this scale deal with minor flaws and weaknesses. High scores may indicate the person is not being honest or frank. In the middle range (T = 45-65) it may indicate a person who is overly conforming, rigid in their thinking, moralistic, and uses repression and denial excessively. Low scores usually indicate that a person has responded frankly and is able to admit small flaws and shortcomings.

**F Scale (Frequency)** This scale was originally devised to detect deviant or atypical ways of responding. Scores below T = 50 indicate normal responding. Scores between 50-65 may indicate a person who has concerns about a particular problem but is usually well functioning.
K Scale (Defensiveness)  The K scale was devised to be another more "subtle" indicator of a person's defensiveness. Graham (1993) recommends the use of the K-correction although some research with clergy MMPI's (Kania, 1965; Sprinkle, 1989; Hook, 1992) suggests that for populations which consistently score higher on this scale, perhaps K corrections should not be used. Ministers typically score above T = 55 on this scale. This has been interpreted as someone who is overly defensive, wants to appear in control, and effective. Kania (1965) studied K scales among clergy and suggested that rather than pathological defensiveness, the scale indicated among normal groups healthy defensiveness and greater ego strength. Unless the scale is highly elevated (T = 65 or more) it is interpreted more positively with people who belong to higher socioeconomic and educational groups.

Scale 1 (Hypochondriasis)  Scale 1 identifies people who may be preoccupied with somatic symptoms. They may lack insight and resist psychological interpretations. They may be complaining, demanding and whining.

Scale 2 (Depression)  Scale 2 assesses a person's mood which may include characteristics of poor morale, lack of hope in the future, and general dissatisfaction with life. High scorers may be agitated, tense, lack self-confidence, and be shy or introverted.

Scale 3 (Hysteria)  Scale 3 measures level of denial. It is often related to intellectual ability and brighter people tend to score higher. Higher elevations (T = 80 or more) may suggest people who react to stress by avoiding responsibility and develop physical symptoms. These people may not express anger openly and lack insight concerning the relationship of their physical symptoms and emotions.
Scale 4 (Psychopathic Deviate)  Scale 4 was devised to measure the degree a person was fighting something. Moderate elevations on Scale 4 (55-65) may indicate persons who are rebelling toward authority figures, blame family for problems, are impulsive and strive for immediate gratification, and do not plan behavior well.

Scale 5 (Masculinity/Femininity)  The masculinity-femininity scale was originally developed to identify homosexual males but only a few items have been found to differentiate homosexual and non-homosexual males. High scores (60-70) on this scale usually indicate someone who does not have stereotypically masculine interests but more aesthetic and cultural interests as do many educated men. On the original MMPI, this scale was typically the most elevated scale for male clergy. Women usually do not score high on Scale 5 but a high score may indicate someone who rejects traditional female roles.

Scale 6 (Paranoia)  This scale was originally devised to identify psychiatric patients with paranoid symptoms and T-scores greater than 70 may reflect psychotic behavior. Moderate elevations (60-70) indicate such persons may be excessively sensitive, tend to rationalize and blame others, are suspicious and guarded, hostile, resentful, moralistic and rigid in their opinions.

Scale 7 (Psychasthenia)  Scale 7 was developed to identify obsessions and compulsions, and a tendency to worry. High scorers may be experiencing greater psychological turmoil and discomfort, lack self-confidence, have self-doubts, but also may be organized, persistent, reliable, dull and formal.
Scale 8 (Schizophrenia) Scale 8 was developed to identify and diagnose patients with schizophrenia especially those with T-scores greater than 75. Moderately elevated scores (55-65) or extreme score above 90 may indicate someone with acute psychological turmoil, confusion, a schizoid lifestyle, generalized anxiety, those who are withdrawn and secretive but also creative with wide interests, vague and abstract goals.

Scale 9 (Hypomania) Elevations above T = 80 may indicate a manic episode. Moderate elevations may indicate overactivity and unrealistic self-appraisal, but also energetic, talkative and someone who may prefer action to thought. Such people may be creative but not interested in details or routine or see their own limitations. A low score may indicate someone with low energy and activity levels. Coupled with an elevated Scale 4 score such individuals may have difficulty with conforming to authority.

Scale 0 (Social Introversion) The Social Introversion scale was developed to assess a person's tendency to withdraw from social contacts. High scorers may be insecure and uncomfortable in social situations and lack self-confidence. Low scorers tend to be more sociable and extroverted.

Reliability and Validity. The Restandardization Project team, wanting to ensure continuity between the original MMPI and the revised MMPI-2, maintained the basic clinical scales with few changes. Graham (1993) reported raw score correlations on the clinical scales of the original MMPI and the revised MMPI-2 were all above .98.

Although many personality characteristics do change over even very short periods of time, measures of personality structure have higher temporal stability. On the original
MMPI, test-retest coefficients for periods up to two weeks tended to be fairly high but were considerably lower for longer periods of time. For the MMPI-2 test-retest coefficients for periods up to one day, one to two weeks and one year or more for normal populations have typical ranges of .80-.85, .70-.80 and .35-.45, respectively. The conclusion is that the short-term temporal stability of the MMPI-2 scales for normal subjects appears to be at least as high or higher than the stability of the original MMPI scales. Temporal stability of high point codes also appears to be as reliable as the original MMPI and other personality measures ranging from 52% for one-point codes to 19% for three-point codes.

Because of the empirical keying method used to construct the scales, little attention was given by the original test authors to internal consistency. Internal consistency values for the MMPI-2 are similar to those of the original MMPI. For men the range is from .34 to .85. Women range from .37 to .87. Scales Hypochondriasis, Psychasthenia, Schizophrenia, and Social Introversion appear to be the most internally consistent, and scales Masculinity/Femininity, Paranoia, and Hypomania appear to be the least consistent. With the exception of Hypochondriasis where most of the variance is a concern for health and bodily functioning, factor analytic studies of the standard scales have found they are not unidimensional.

When the MMPI and MMPI-2 raw scores and T-scores are compared, some differences have been found (See the discussion on Chojnacki, 1992, above). Most studies have found raw score comparisons between the two tests to be not significantly different than scores on the MMPI taken on test-retest studies with one week intervals. When the issue of raw score level is addressed, the normative sample for the MMPI-2 was found to have endorsed more items in the scored direction than did the original MMPI normative sample. This was attributed to the difference in test instructions given to the
two groups. The original normative sample was encouraged to leave a test item blank if
they felt they could not answer it, whereas the MMPI-2 normative sample was encouraged
to answer every item. T-scores tend to be lower on the MMPI-2 than on the MMPI.
Tables are included in the manual to determine MMPI score equivalents to MMPI-2
scores. The average T-score difference is close to 5 points with some scales differing by
10-15 points, for example Scale 5, Masculinity/Femininity.

Comparability of MMPI and MMPI-2 high point configurations was addressed
earlier in the chapter. The conclusion is that well-defined code types are more congruent
than poorly defined ones and that there is support for the idea that MMPI-2 code types
can be interpreted similarly to MMPI code types.

Methodology

Research Design. This prospective study will use an ex post facto research
design. Persisting and Nonpersisting Professional Church Workers are formed based on
self-selection. Characteristics of ex post facto research designs are: 1) the research takes
place after the groups have been formed; 2) the independent variables are not
manipulated; 3) there is no random assignment on the grouping variable. Consequently,
there is greater probability for the role of chance and unique sample characteristics to
influence statistical results.

The independent variables for this study are the K-corrected T score means for the
13 validity and clinical scales of the MMPI-2. The 3 validity scales are L (Lie), F
(Frequency), and K (Defensiveness). The 10 clinical scales are Scales 1
(Hypochondriasis), 2 (Depression), 3 (Hysteria), 4 (Psychopathic Deviate), 5
(Masculinity/Femininity), 6 (Paranoia), 7 (Psychasthenia), 8 (Schizophrenia), 9
(Hypomania), and 0 (Social Introversion). The 7 selected demographic variables are
Age, Sex, Level of Education, Marital Status, Career Recommendation, Self-other Referred, and Threat of Termination. The dependent variable is Current Status - Persisting and Nonpersisting in ministry. The discriminant functional analysis is the statistical procedure deemed appropriate for this research.

Information on Current Status was derived from 1996 annual reports of the eight Protestant denominations included in the study. The annual reports document where rostered ministers are serving in their respective denominations. The eight denominations included in the study are the Evangelical Lutheran Church in America, the Presbyterian Church - USA, the Episcopal Church, the United Methodist Church, the American Baptist Church, the Disciples of Christ, the Church of the Brethren, and the United Church of Christ. The annual reports were purchased from the eight denominational headquarters and are currently on file at MCDS.

With the exception of one denomination, the United Methodist Church, the annual reports were described as up-to-date information through December 31, 1995. The United Methodist Church reports General Conference Minutes as current information from the previous year's conference, in this case, June, 1995.

Ministers are defined as Persisting if they are presently serving in congregational ministry or another capacity within the denomination, are an interim or temporary supply minister, on leave waiting call, or serving in another denomination if that information is known. Nonpersisting ministers are defined as those who had been removed from the roster, had resigned, were on study leave, on leave but not waiting call, or not found on the roster. Confidential client names were matched with names from the annual reports by MCDS employees.

Statistical Procedure. Discriminant functional analysis is a multivariate statistical procedure deemed appropriate to investigate the discriminating and predictive potential of
the selected variables in this study. Discriminant analysis is the broader term referring to two different but related sets of research techniques. The first set of techniques known as descriptive discriminant analysis (DDA) is used to interpret group differences. The second set of techniques called predictive discriminant analysis (PDA) is used to classify multiple response measures into well-defined groups. Both the descriptive and predictive functions of discriminant analysis will be used to investigate this study's research questions.

DDA techniques are used to investigate three types of research questions (Huberty, 1984). Is there a subset of variables underlying the original set of personality and demographic variables and, if so, how are they ordered in terms of their relative contribution to separating the groups - persevering and nonpersevering ministers? The third question asks how the underlying structure aids in the interpretation of group differences. PDA techniques are used to investigate questions concerning group prediction. Can group membership be predicted using scores on the response variables, and are the hit rates better than expected by chance?

Klecka (1980) summarized the underlying mathematical assumptions for discriminant analysis. They are:

1) Two or more well-defined groups.
2) At least two cases per group.
3) Any number of discriminating variables, provided that they are less than the total number of cases minus two. Huberty (1989) suggests a 5:1 ratio of cases to independent variables.
4) Discriminating variables are measured at the interval level. If a nominal level variable is used, then it must be coded into a dummy variable.
5) No discriminating variable may be a linear combination of other discriminating variables. When two or more variables are highly correlated it results in high
multicollinearity. The result is that the information the variable contributes to the analysis becomes redundant and the underlying mathematical requirements of the analysis are confounded.

6) The covariance matrices for each group must be approximately equal. The classification process is adversely affected when this assumption is violated especially for small and unequal sized groups. Its affect can be minimized by increasing the sample size.

7) Each group has been drawn from a population with a multivariate normal distribution on the discriminating variables. When this assumption is met, computation of tests of significance and probabilities of group membership are more likely to be accurate (Klecka, 1980).

The assumptions of normality and equal covariance matrices are the most difficult to meet in discriminant analysis. The assumption of normality is important for tests of significance and classification into group membership. When group covariance matrices are unequal, distortions occur in the linear discriminant functions and the classification procedure. While discriminant analysis is viewed as a robust procedure that can tolerate minor violations, the results will be less accurate (Klecka, 1980; Hair et al., 1995). The problem is to determine how much error can be tolerated and what other procedures may correct for the violations.

**Analysis.** Research hypotheses: 1) There is no statistically significant difference in the means of the discriminant scores for the two groups (Persisters and Non-persisters) with respect to the 3 validity and 10 clinical scales of the MMPI-2 and 7 selected demographic and situational variables of Age, Sex, Level of Education, Marital Status, Career Recommendation, Self-other Referred, and Threat of Termination. A descriptive discriminant analysis (DDA) is deemed the appropriate statistical procedure to investigate this hypothesis. 2) The psychological and demographic variables included in the study
cannot predict beyond the level of chance those who persist and those who do not persist in ministry. A predictive discriminant analysis (PDA) is deemed the appropriate statistical procedure to investigate this hypothesis.
CHAPTER 4

RESEARCH FINDINGS

This chapter reports the results of the data analysis. First, total sample characteristics are described. Second, subjects are described with regard to their distribution on the selected independent and dependent variables. Third, the findings of the discriminate analysis with regard to the research hypotheses are reported and examined.

Sample Description

A total of 639 Professional Church Workers participated in a career reassessment program at one of three MCDS locations during the years 1991-1994. From this number 63 subjects were removed from the research sample due to missing information on one or more of the selected variables. The remaining 576 subjects provided the data for this study. There were 452 (78.47%) men and 124 (21.52%) women subjects. All participants in this study undertook a career reassessment program during the years 1990-1994 with a mid-west career center that was located in one of three geographical areas. The number of participants per geographical location is listed in Table 1.
Table 1: Geographical Location of Subjects

Subjects were members of 8 Protestant denominations. Table 2 gives the total number of subjects by denomination.

<table>
<thead>
<tr>
<th>Denomination</th>
<th>Persisters</th>
<th>Nonpersisters</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Baptist Church</td>
<td>102</td>
<td>90</td>
</tr>
<tr>
<td>Evangelical Lutheran Church in America</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td>Church of the Brethren</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Disciples of Christ</td>
<td>17</td>
<td>5</td>
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<td>Episcopal Church</td>
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</tr>
<tr>
<td>United Methodist Church</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>Presbyterian Church U.S.A.</td>
<td>122</td>
<td>31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>383</strong></td>
<td><strong>193</strong></td>
</tr>
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</table>

Table 2: Number of Subjects by Denomination
Table 3 presents the means of selected variables used in the analysis by denomination.

<table>
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<tr>
<th>Var. Name</th>
<th>Am. Baptist Church</th>
<th>Evang. Luth. Church</th>
<th>Church of the Breth.</th>
<th>Disc. Of Christ</th>
<th>Episc. Church</th>
<th>United Church Christ</th>
<th>United Meth. Church</th>
<th>Presbyt Church USA</th>
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<td>Age</td>
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<td>42.02</td>
<td>40.59</td>
<td>42.82</td>
<td>47.89</td>
<td>42.72</td>
<td>44.67</td>
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<td>7.8E-02</td>
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<td>.25</td>
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<td>.17</td>
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<td>.28</td>
<td>.31</td>
<td>.25</td>
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<td>.23</td>
<td>.13</td>
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<td>.00</td>
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<td>48.91</td>
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Table 3: Means of Selected Variables by Denomination
The racial distribution of the 576 subjects is presented in Table 4.

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<tr>
<th>Race</th>
<th>Count</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Caucasian</td>
<td>544</td>
<td>94.44%</td>
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<tr>
<td>African-American</td>
<td>20</td>
<td>3.47%</td>
</tr>
<tr>
<td>Asian-American</td>
<td>2</td>
<td>0.35%</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>0.17%</td>
</tr>
<tr>
<td>Hispanic-American</td>
<td>4</td>
<td>0.69%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>0.69%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>576</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Racial Distribution of Sample

The average age of all subjects in this study was 42.3 years with the youngest subject age 23, and the oldest subject age 69. An examination of the frequency table of subject’s ages reveals a sharp increase in numbers of clients visiting the career centers at age 33 and a corresponding decrease in number of clients after age 47. Fully, 358 (62.15%) of the subjects fell between the ages of 33-47, roughly corresponding to the adult mid-life years identified by Levinson as the critical years for making a career change. There were 96 (16.67%) subjects that fell between the ages of 23 to 32, and 122 (21.18%) subjects fell between the ages of 48 and 69.

The majority of this sample or 400 (69.5%) were seminary graduates only and another 105 (18.2%) had graduated from seminary and then did additional post-graduate work. Of the 71 (12.3%) subjects who were not seminary graduates, 42 (7.3%) had no seminary education, 15 (2.6%) had less than one year of seminary education and 13 (2.3%) had one or two years of seminary education.
A majority of this sample was ordained by their church governing boards. The total number of ordained clergy were 493 (85.6%). Lay people numbered 34 (5.9%), and there were 49 (8.5%) non-ordained professional church leaders.

Variable Selection

The dependent variable selected for this analysis is Persisting and Nonpersisting in professional church ministry. Persisters are defined as those currently serving in professional ministry as of December 31, 1995, when judicatory statistics for most of the denominations used in this study were updated for the yearbooks published in the Spring of 1996. There was one exception to this practice. The church records for the United Methodist Church were updated after district annual conference meetings held in June of 1995. Persisters are defined as men and women serving as pastor or associate pastor in a church, serving as a Christian educator, chaplain, denominational staff, church teacher, missionary, campus minister, or in any other capacity within the judicatory. Non-persisters are defined as men and women who took a leave of absence from ministry, are not waiting a call to serve a church, are retired or whose names were not listed in the yearbook of their denomination. There are 383 (66.49%) Persisting Professional Church Workers and 193 (33.52%) Nonpersisting Professional Church Workers who are the subjects for this study.

The independent variables were selected based on research with the human stress response. Lazarus and Folkman (1984) proposed a transacationalist theory of stress in which an individual’s appraisal of stress may be more important to well-being than
number of life events or hassles. According to the theory, stress is minimized when the appraised demands of the situation are met with sufficient resources. Stress develops when either the demands increase or the resources to meet the demands are no longer available. Cherniss (1980) and Cooper and associates in the United Kingdom (Cooper, et al., 1994; Bogg & Cooper, 1995; Rout, et al, 1996) examined the interaction of individual personality factors, job structure within organizations and stress. Cherniss found personality factors influenced a person’s coping response, yet determined that job structure and the work organization were an even stronger determinant of stress and burnout than an individual’s personality. Cooper and associates found Type A behavior to have a particular causal impact on physical ill-health for groups of white collar workers, but more recently Jorgensen, et al. (1996) in a meta-analysis of nearly 300 studies found anger, rather than Type A personality syndrome, to correlate with greater risks of heart attacks and strokes. Smith (1989, 1992) found that the effects of a display of anger and antagonism in the work environment are to increase exposure to stressful conditions and physiologic reactivity, as well as diminish coping resources and social support. The present study examined which personality, situational and demographic variables would significantly impact the decision to stay with or leave professional ministry. There were 20 psychological, situational and demographic variables selected as independent variables.

**Personality Variables.** The psychological variables are the 3 validity scales and 10 clinical scales of the MMPI-2. These 13 variables were selected from the MCDS database to determine whether or not personality characteristics as measured by the
MMPI-2 contribute to career decisions to stay or leave professional ministry (Mills, 1969; Jud et al., 1970; Dillon, 1983; Reasoner, 1988; Sprinkle, 1989; Hook, 1992; Kyne, 1992). K-corrected T scores of the MMPI-2's thirteen scales were used in the analysis.

**Situational Variables.** The selected situational variables are Career Recommendation, Self/Other Referred and Threat of Termination. These variables were selected from the MCDS database after an extensive review of the literature on ministerial commitment suggested these variables would likely discriminate between those persisting and not persisting in the ministry (Sprinkle, 1989; Lachar, 1974; Mills, 1969; Jud, et al., 1970; Mill & Koval, 1971; Goetz, 1996; Willette, 1997; Kanchier & Unruh, 1988). The situational variables were categorical level data and transformed into dichotomous variables for the analysis.

Clinical judgment was found to be as effective as MMPI profile scores alone in judging who would persist and who would not persist in ministry according to studies by Sprinkle (1989) and Lachar (1974). The MCDS counselors, in consultation with the client, recommend a career path for each client. When the counselor recommended that the minister continue to serve in a congregation or serve the wider church, the recommendation was given the value of 0. A total of 444 subjects (77.08%) received this recommendation. When the career recommendation was made to leave church ministry altogether, the recommendation was given the value of 1. A total of 132 subjects (22.92%) received this recommendation.

Clients to MCDS are listed as self-referred, referral suggested or referral required. The largest majority of clients to MCDS are referred to the centers by others. A total of
200 subjects (34.7%) were self-referred. Clients who came to the center as the result of a suggestion by someone else totaled 227 (39.4%), and clients who were required to come for career reassessment totaled 149 (25.9%). The variable was entered as 0 for the 200 self-referred subjects, and 1 for the 376 (74.1%) subjects to whom the suggestion or requirement was made to visit the center.

When interviewed, clients were asked if they were under threat of termination or had already been terminated from a ministerial position. Fully, 387 clients (67.2%) were not under threat of termination. Seventy-five clients (13.0%) had been threatened with termination, and 114 clients (19.8%) had been terminated at the time of the interview. The 387 subjects who were not terminated or under threat of termination were entered as 0. The 189 subjects who were under threat or who had already been terminated were entered as 1.

Demographic Variables. The demographic variables are Age, Sex, Marital Status and Seminary Education. These variables were also selected from the database of information gathered on each client at the time he or she visited the career center. These variables were selected for the study after a review of the literature suggested they have discriminated between persisting and nonpersisting ministers in past studies with the MMPI and clergy (Morse, 1963; Reasoner, 1988; Sprinkle, 1989; Kyne, 1992; Mills, 1969; Jud, et al., 1970; Mills & Koval, 1971; Willborg & Collier, 1997).

The age of each client was entered into the analysis as an interval level variable. The variables Sex, Marital Status and Seminary Education were categorical level data transformed into dichotomous variables.
The variable Sex was 0 for males and 1 for females. There were 452 (78.5%) male subjects entered as 0. There were 124 (21.5%) female subjects entered as 1.

The variable Marital Status was entered as 0 for currently married, and 1 for not currently married. Those currently married included 378 (65.6%) subjects married for the first time, 64 (11.1%) subjects remarried from divorce and 5 (.9%) subjects remarried from death of spouse for a total of 447 (77.6%). Those not currently married included 67 (11.6%) subjects never married, 7 (1.2%) subjects engaged, 1 (.2%) subject widowed, 6 (1.0%) subjects separated and 48 (8.3%) subjects divorced for a total of 129 (22.4%).

The variable Seminary Education was entered as 0 for 505 (87.7%) subjects who graduated from seminary and entered as 1 for the 71 (12.3%) subjects who had not graduated from seminary. Seminary graduates included 400 (69.4%) with a seminary degree and 105 (18.2%) with post-seminary graduate training. Non-seminary graduates included 43 (7.5%) who did not have any seminary education, 15 (2.6%) who had less than a year of seminary and 13 (2.3%) who had one or two years of seminary education.

Results of the Discriminant Analysis Reported

Table 4 is a list of means and standard deviations of all independent variables used in this analysis. The independent variables include 14 interval level measures and 6 dichotomous variables.

The use of dichotomous variables in a descriptive and predictive discriminate analysis is discouraged by Klecka (1980) and Huberty (1984), as well as others, although these same authors acknowledge that in practice researchers use dichotomous variables in
discriminant analyses because research data in the field is often categorical in nature. Typical of other authors, Hand (1997) remarks, “Since classical linear discriminant analysis is based on an assumption that the classes have different mean vectors but the same covariance matrix, one might expect the method (i.e. linear discriminant analysis) to perform poorly with multivariate binary data” (p. 164).

Violations of multivariate assumptions of normal distribution and equal variance and covariance matrices can increase the possibility of making Type I and Type II errors, although Hand (1997) goes on to state that, “Experiment suggests, however, that this [i.e. poor performance] is not the case. (Though clearly this will be a complicated function of design sample size, accuracy of performance assessment, overfitting considerations, and so on.) In general, it seems that if the true decision surface is roughly linear then linear discriminant analysis performs reasonably well” (p. 164). Stevens (1996) and Huberty (1984), also, acknowledge that the discriminant statistic is robust enough to withstand minor violations of assumptions when certain adjustments are made to the study. For example, sample size, measured effect and alpha level can be manipulated so that the researcher can be confident with statistical results when certain assumptions have been violated.

Stevens states that the most important assumption in any research data, and especially for the classification of subjects in predictive discriminant analysis (Huberty, 1984), is independence of subject observations. The violation of this assumption would render the study’s statistical analysis highly unreliable, but the violation of equal variance and covariance matrices mainly effects the classification hit rate on the group with the
most dispersed variances. When the groups are unequal in size, then the discriminant function tends to classify more subjects into the group with the smaller variances. In this study the smaller Nonpersisting group (n = 193) has the larger variances in comparison to the Persisting group (n = 383).

Otherwise, when the ratio of subject to variable is large enough, i.e. greater than 20 to 1 according to Stevens (1996) and Hair, et al. (1995), then violations of normality and unequal variance and covariance matrices become less prohibitive in a discriminant analysis. The present study used 576 subjects and 20 variables, a ratio of more than 28:1. With this large ratio of subject to variable, the discriminant analysis is robust.
<table>
<thead>
<tr>
<th>VARIABLES</th>
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<th></th>
<th>NONPERSISTERS</th>
<th></th>
<th>TOTAL</th>
<th></th>
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<td>St.D.</td>
<td>Means</td>
<td>St.D.</td>
<td>Means</td>
<td>St.D.</td>
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<td>9.47</td>
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<td>9.68</td>
<td>51.83</td>
<td>8.64</td>
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Table 5: Means and Standard Deviations of Persisters and Nonpersisters
Table 6 lists the names and descriptions of the variables to be investigated.

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<th>CURRENT STATUS</th>
<th>Subject’s outcome</th>
<th>Persister =0; Nonpersister =1</th>
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<td>Subject’s sex</td>
<td>Male = 0; Female = 1</td>
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<td>Age at time of visit</td>
<td>Years</td>
</tr>
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<td>MS</td>
<td>Marital status at visit</td>
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</tr>
<tr>
<td>SEED</td>
<td>Seminary education</td>
<td>Yes = 0; No = 1</td>
</tr>
<tr>
<td>REF</td>
<td>Person recommending visit</td>
<td>Self = 0; Other = 1</td>
</tr>
<tr>
<td>CAR/REC</td>
<td>Career recommendation</td>
<td>Stay = 0; Leave = 1</td>
</tr>
<tr>
<td>INVOL</td>
<td>Involuntary termination</td>
<td>No = 0; Yes = 1</td>
</tr>
<tr>
<td>L</td>
<td>Lie Scale</td>
<td>T score</td>
</tr>
<tr>
<td>F</td>
<td>Frequency Scale</td>
<td>T score</td>
</tr>
<tr>
<td>K</td>
<td>Correction Scale</td>
<td>T score</td>
</tr>
<tr>
<td>HS</td>
<td>Scale 1 – Hypochondriasis</td>
<td>T score</td>
</tr>
<tr>
<td>D</td>
<td>Scale 2 – Depression</td>
<td>T score</td>
</tr>
<tr>
<td>HY</td>
<td>Scale 3 – Hysteria</td>
<td>T score</td>
</tr>
<tr>
<td>PD</td>
<td>Scale 4 – Psychopathic Deviate</td>
<td>T score</td>
</tr>
<tr>
<td>MF</td>
<td>Scale 5 – Masc./Femin.</td>
<td>T score</td>
</tr>
<tr>
<td>PA</td>
<td>Scale 6 – Paranoia</td>
<td>T score</td>
</tr>
<tr>
<td>PT</td>
<td>Scale 7 – Psychasthenia</td>
<td>T score</td>
</tr>
<tr>
<td>SC</td>
<td>Scale 8 – Schizophrenia</td>
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</tr>
<tr>
<td>MA</td>
<td>Scale 9 – Mania</td>
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</tr>
<tr>
<td>S</td>
<td>Scale 0 – Social Introversion</td>
<td>T score</td>
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</tbody>
</table>

Table 6: Variables Used in the Statistical Analysis

Each of the discriminating variables was examined to determine which ones best separated the two groups of Persisting and Nonpersisting Professional Church Workers.

The Wilks’ Lambda and F statistic are tests that determine the equality of group means for each variable. That is, the variables that best individually separate the two groups will show the lowest Wilks’ Lambda statistic and the highest value of F. The Wilks’ Lambda is a measure of within group sum of squares to the total sum of squares. Its
values range from 0 to 1.0. The smaller the value of lambda the more evidence there is of between group differences, while higher values indicate less group differences. The F statistic, is a univariate analysis of variance statistic, which tests the hypothesis that the group means are equal. Individual variables that discriminate between the two groups are significant at the .01 and .05 level.

Table 7 presents these two statistics for each of the variables used in the analysis.

<table>
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<tr>
<th>Variable</th>
<th>Wilks Lambda</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Significance</th>
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</tr>
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<td>.000*</td>
</tr>
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<td>574</td>
<td>.000*</td>
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<td>.000*</td>
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<td>L</td>
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<td>574</td>
<td>.015**</td>
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<td>1</td>
<td>574</td>
<td>.609</td>
</tr>
<tr>
<td>HS</td>
<td>.999</td>
<td>.685</td>
<td>1</td>
<td>574</td>
<td>.408</td>
</tr>
<tr>
<td>D</td>
<td>.999</td>
<td>.839</td>
<td>1</td>
<td>574</td>
<td>.360</td>
</tr>
<tr>
<td>HY</td>
<td>1.000</td>
<td>.008</td>
<td>1</td>
<td>574</td>
<td>.930</td>
</tr>
<tr>
<td>PD</td>
<td>.983</td>
<td>10.157</td>
<td>1</td>
<td>574</td>
<td>.002*</td>
</tr>
<tr>
<td>MF</td>
<td>.997</td>
<td>1.478</td>
<td>1</td>
<td>574</td>
<td>.225</td>
</tr>
<tr>
<td>PA</td>
<td>.998</td>
<td>1.249</td>
<td>1</td>
<td>574</td>
<td>.264</td>
</tr>
<tr>
<td>PT</td>
<td>1.000</td>
<td>.253</td>
<td>1</td>
<td>574</td>
<td>.615</td>
</tr>
<tr>
<td>SC</td>
<td>.995</td>
<td>2.599</td>
<td>1</td>
<td>574</td>
<td>.108</td>
</tr>
<tr>
<td>MA</td>
<td>.997</td>
<td>1.570</td>
<td>1</td>
<td>574</td>
<td>.211</td>
</tr>
<tr>
<td>SI</td>
<td>1.000</td>
<td>.024</td>
<td>1</td>
<td>574</td>
<td>.878</td>
</tr>
</tbody>
</table>

* Significant at the .01 level  
** Significant at the .05 level

Table 7: Wilks' Lambda and F Statistic for Selected Variables
This table indicates that there are six variables significant at the .01 level that separate the two groups. They are: SEED (Seminary Education), CARREC (Career Recommendation), MS (Marital Status), REF (Referral Source), PD (Scale 4), and SX (Sex). Two other variables, L (Lie) and F (Frequency), are also significant at the .05 level.

The research hypotheses state: 1) There are no statistically significant differences in the means of the discriminant scores for the two groups of Professional Church Workers (Persisters and Nonpersisters) with respect to the 3 validity and 10 clinical scales of the MMPI-2 and 7 selected demographic and situational variables of Age, Sex, Seminary Education, Marital Status, Career Recommendation, Referral Source and Involuntary Termination. A descriptive discriminant analysis (DDA) was the procedure used to investigate this hypothesis. 2) The psychological and demographic variables included in the study do not predict beyond the level of chance those who persist and those who do not persist in ministry. A predictive discriminant analysis (PDA) is deemed the appropriate statistical procedure to investigate this hypothesis.

The Descriptive Discriminant Analysis. In order to examine this research hypothesis, the discriminant analysis is used to find the best linear combination of the response variables that maximizes the between-to-within group association. This quotient corresponds to the largest eigenvalue. For a two group case, there is only one discriminant function. Table 8 is a summary of the discriminant function statistics.
<table>
<thead>
<tr>
<th>Function</th>
<th>Eigenvalue</th>
<th>% of Variance</th>
<th>Cumulative %</th>
<th>Canonical Corr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.271</td>
<td>100.0</td>
<td>100.0</td>
<td>.462</td>
</tr>
</tbody>
</table>

Table 8: Summary of the Discriminant Function Statistics

The larger the eigenvalue, the more the two groups will be separated on the canonical function. The percent of variance and cumulative percent are always 100.0 for the two-group situation. The canonical correlation measures the association between the discriminant scores and the groups. For the two group case it is the Pearson correlation between the scores and has a minimum value of 0 and a maximum value of 1.00. When the canonical correlation of .462 is squared, it indicates that 21.3% of the variance in the dependent variable (i.e., Persisting and Nonpersisting Professional Church Workers), is explained by the function (Hair, et al., 1995). This value indicates there is a significant association between the groups and the discriminant function.

The next table presents the common test for the statistical significance of the discriminant function by examining the residual discrimination in the system before deriving that function. Residual discrimination means the ability of the variables to discriminate among the groups beyond the information that has been extracted by the functions (Klecka, 1980). Wilks' Lambda is the multivariate measure that shows the proportion of the total variance in the discriminant scores not explained by differences among the groups. Lambda tests the null hypothesis that the means of all the variables across groups are equal. It is an inverse measure, meaning that values near zero indicate
the group centroids are greatly separated, while values that approach the maximum value
of 1.0 are reporting less separation of the groups (Klecka, 1980).

<table>
<thead>
<tr>
<th>Test of Function</th>
<th>Wilks’ Lambda</th>
<th>Chi-square</th>
<th>Df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.787</td>
<td>135.373</td>
<td>20</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 9: Test of Function

An examination of Table 9 shows that the Wilks’ Lambda is relatively high at
.787, although the Chi-square is significant at 135.373. This means that while the two
groups are significantly different on the discriminant function, there is 78% unexplained
variance in the system. The Wilks’ Lambda of .787 with a Chi-square of 135.373 and 20
degrees of freedom is significant at the <.001 level. Therefore, the null hypothesis can be
rejected. That is, the two groups have significantly different means on the discriminant
scores for the two groups of Professional Church Workers with respect to the
demographic, situational and psychological variables used in the analysis.

SPSS provides the Box’s M statistic to test the null hypothesis that the covariance
matrices are equal, one of the basic assumptions of discriminant analysis. The Box’s M
test tends to be sensitive to even small departures from multivariate normality (Stevens,
1996; Hair, et al., 1995). The Box’s M value is 534.483, with F (2.438), p < .001. The
null hypothesis is, therefore, rejected indicating the covariance matrices are
not equal. When covariance matrices are unequal, this tends to
predominantly effect the classification procedure. Cases are over classified into the group with the smaller variances.

Table 10 presents the unstandardized and standardized discriminant function coefficients. When the set of raw coefficients for each function are applied to the original data, they are referred to as unstandardized coefficients because the original data has not been standardized. The unstandardized coefficients give the absolute contribution of a variable in determining the discriminant score, but they give misleading information. This is because a unit change in the value of a variable is not the same from one variable to another (Klecka, 1980, p. 29) and the standard deviations are not the same.

Unstandardized coefficients are used to compute the discriminant functions evaluated at the group means. In addition, in the two group case, the unstandardized coefficients are proportional to the values of the Fisher discriminant function coefficients used in the classification procedure.

The unstandardized coefficients can also be used to compute the standardized discriminant functions by multiplying each coefficient with the pooled estimate of each variable's standard deviation. As a result, the standardized discriminant functions provide information about the relative contribution of the individual variable to the separation of the groups since the means of the variables have been standardized to zero with a standard deviation of one. The larger the magnitude (ignoring the sign) of a standardized coefficient, the greater is that variable's contribution to the discriminant function. However, as the variables are correlated, the value for any one variable depends on the other variables in the function.
The seven coefficients making the greatest contribution to the discriminant function are in order: SEED (Seminary Education), CARREC (Career Recommendation), PD (Scale 4), L (Lie Scale), REF (Referral Source), PT (Scale 7), and MS (Marital Status).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized</th>
<th>Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>-.009</td>
<td>-.073</td>
</tr>
<tr>
<td>SX</td>
<td>.064</td>
<td>.026</td>
</tr>
<tr>
<td>MS</td>
<td>.399</td>
<td>.165</td>
</tr>
<tr>
<td>SEED</td>
<td>2.364</td>
<td>.723</td>
</tr>
<tr>
<td>REF</td>
<td>.412</td>
<td>.195</td>
</tr>
<tr>
<td>CARREC</td>
<td>.967</td>
<td>.394</td>
</tr>
<tr>
<td>INVOL</td>
<td>.121</td>
<td>.057</td>
</tr>
<tr>
<td>L</td>
<td>.022</td>
<td>.202</td>
</tr>
<tr>
<td>F</td>
<td>.006</td>
<td>.050</td>
</tr>
<tr>
<td>K</td>
<td>.012</td>
<td>.111</td>
</tr>
<tr>
<td>HS</td>
<td>.001</td>
<td>.010</td>
</tr>
<tr>
<td>D</td>
<td>.010</td>
<td>.097</td>
</tr>
<tr>
<td>HY</td>
<td>-.002</td>
<td>-.019</td>
</tr>
<tr>
<td>PD</td>
<td>.035</td>
<td>.310</td>
</tr>
<tr>
<td>MF</td>
<td>.002</td>
<td>.024</td>
</tr>
<tr>
<td>PA</td>
<td>.001</td>
<td>.010</td>
</tr>
<tr>
<td>PT</td>
<td>-.020</td>
<td>-.186</td>
</tr>
<tr>
<td>SC</td>
<td>-.016</td>
<td>-.135</td>
</tr>
<tr>
<td>MA</td>
<td>.018</td>
<td>.156</td>
</tr>
<tr>
<td>SI</td>
<td>.010</td>
<td>.107</td>
</tr>
<tr>
<td>Constant</td>
<td>-4.661</td>
<td></td>
</tr>
</tbody>
</table>

Table 10: Unstandardized/Standardized Canonical Discriminant Function Coefficients

When the correlations between discriminating variables and standardized canonical discriminant functions are examined, the order of highest to lowest variable
coefficients is not the same. This is because the two statistics are giving different information. The discriminant function variable correlations are another method for interpreting the discriminant functions (Stevens, 1996). For both the standardized coefficients and the discriminant function variable correlations, it is the largest absolute values that are used in the interpretation. The correlations are obtained by computing the Pearson correlation coefficient between the discriminant function for each case and the original variable. This is called the pooled within-groups correlation matrix, and the variables are ordered by absolute size of the correlation within the function.

Stevens (1996) argues, with others, in favor of using the discriminant function variable correlations for interpretative purposes for two reasons. One, the correlations have greater stability for small or medium sized samples, especially when there is high intercorrelation between the variables. The second reason is that the correlations show which variables are most closely aligned with the unobserved trait, which the discriminant function represents. On the other hand, the standardized coefficients are partial coefficients with the effects of the other variables removed (p. 264). The discriminant function variable correlations are similar to factor loadings in factor analysis. When the absolute magnitude of the correlation is large (near +1.0 or −1.0), it carries nearly the same information as the variable, but when the correlation is near zero, there is little commonality between the discriminant function and the variable (Klecka, 1980). Table 11 presents the Structure Matrix of the correlations between the discriminating variables and the standardized canonical discriminant functions.
Because the structure coefficients are simple bivariate correlations, they are not affected by relationships with the other variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Structure Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEED</td>
<td>.768</td>
</tr>
<tr>
<td>CARREC</td>
<td>.499</td>
</tr>
<tr>
<td>MS</td>
<td>.305</td>
</tr>
<tr>
<td>PD</td>
<td>.255</td>
</tr>
<tr>
<td>REF</td>
<td>.255</td>
</tr>
<tr>
<td>SX</td>
<td>.250</td>
</tr>
<tr>
<td>L</td>
<td>.195</td>
</tr>
<tr>
<td>F</td>
<td>.161</td>
</tr>
<tr>
<td>INVOL</td>
<td>.146</td>
</tr>
<tr>
<td>SC</td>
<td>.129</td>
</tr>
<tr>
<td>MA</td>
<td>.100</td>
</tr>
<tr>
<td>MF</td>
<td>-.097</td>
</tr>
<tr>
<td>PA</td>
<td>.090</td>
</tr>
<tr>
<td>AGE</td>
<td>-.086</td>
</tr>
<tr>
<td>D</td>
<td>.073</td>
</tr>
<tr>
<td>HS</td>
<td>.066</td>
</tr>
<tr>
<td>K</td>
<td>.041</td>
</tr>
<tr>
<td>PT</td>
<td>.040</td>
</tr>
<tr>
<td>SI</td>
<td>-.012</td>
</tr>
<tr>
<td>HY</td>
<td>-.007</td>
</tr>
</tbody>
</table>

Table 11: Structure Matrix — Pooled Within-Groups Correlations

Table 11 indicates that the variable SEED (Seminary Education) has the highest correlation at .768 with the discriminant function. Having a seminary degree is associated with Persisting ministers (P = 0). Not having a seminary degree is associated with Nonpersisting ministers (NP = 1). CARREC (Career Recommendation) has the second largest correlation in absolute value at .499. A career recommendation to stay in
ministry (CARREC = 0) is more highly associated with Persisting ministers. A career recommendation to leave ministry (CARREC = 1) is more highly associated with Non-persisting ministers. The third highest correlation is MS at .305. The status of married (MS = 0) is more highly associated with Persisting ministers. The status of not married (MS = 1) is more highly associated with Nonpersisting ministers. The MMPI-2 variable PD has a correlation of .255, indicating that higher levels on this scale are more highly associated with Nonpersisters in ministry. The variable REF has a correlation of .255, indicating that coming to the career center as a result of a suggestion or requirement from others (REF = 1) was more highly associated with Nonpersisting ministers. Persisting in ministry is associated with ministers who were self-referred (REF = 0). The variable SX has a positive correlation of .250, indicating being female (SX = 1) was more highly associated with leaving ministry than being male (SX = 0). The MMPI-2 variable L has a correlation of .195, indicating higher levels on this scale are more highly associated with Nonpersisting ministers.

The Predictive Discriminant Analysis. Since the two groups differed significantly with respect to the values of the demographic, situational and psychological variables, the ability of the variables (entered together into the analysis) to predict group membership was examined. Predictive discriminant analysis (PDA) is the process used to determine whether or not a single case belongs to a particular group (Huberty, 1984, Klecka, 1980). The classification is based on the information carried by the predicting variables.
The classification coefficients for each of the variables used in the study is presented in Table 11. The coefficients are computed to maximize the distance between the two groups. For each case and for each group, the classification procedure multiplies each coefficient by the value of the corresponding variable, sums the products and adds the constant to get a score. Each case is then classified by this score, into either the Persisting or Nonpersisting groups. In the two group case, such as this one, the coefficients are proportional to the unstandardized canonical variable coefficients reported earlier.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Persisting Ministers</th>
<th>Nonpersisting Ministers</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>.510</td>
<td>.500</td>
</tr>
<tr>
<td>MS</td>
<td>.435</td>
<td>.875</td>
</tr>
<tr>
<td>SEED</td>
<td>2.898</td>
<td>5.502</td>
</tr>
<tr>
<td>REF</td>
<td>3.732</td>
<td>4.186</td>
</tr>
<tr>
<td>CARREC</td>
<td>2.189</td>
<td>3.254</td>
</tr>
<tr>
<td>INVOL</td>
<td>-3.059</td>
<td>-2.926</td>
</tr>
<tr>
<td>SX</td>
<td>11.419</td>
<td>11.490</td>
</tr>
<tr>
<td>L</td>
<td>.170</td>
<td>.193</td>
</tr>
<tr>
<td>F</td>
<td>.798</td>
<td>.805</td>
</tr>
<tr>
<td>K</td>
<td>1.992</td>
<td>2.005</td>
</tr>
<tr>
<td>HS</td>
<td>-.202</td>
<td>-.200</td>
</tr>
<tr>
<td>D</td>
<td>.455</td>
<td>.465</td>
</tr>
<tr>
<td>HY</td>
<td>.692</td>
<td>.689</td>
</tr>
<tr>
<td>PD</td>
<td>4.266E-03</td>
<td>4.234E-02</td>
</tr>
<tr>
<td>MF</td>
<td>.666</td>
<td>.669</td>
</tr>
<tr>
<td>PA</td>
<td>.300</td>
<td>.301</td>
</tr>
<tr>
<td>PT</td>
<td>-.291</td>
<td>-.312</td>
</tr>
<tr>
<td>SC</td>
<td>-.877</td>
<td>-.894</td>
</tr>
<tr>
<td>MA</td>
<td>1.600</td>
<td>1.620</td>
</tr>
<tr>
<td>SI</td>
<td>1.603</td>
<td>1.614</td>
</tr>
<tr>
<td>Constant</td>
<td>-191.862</td>
<td>-197.882</td>
</tr>
</tbody>
</table>

Table 12: Classification Function Coefficients
The results of the classification analysis are summarized in Table 13. The results address the question whether or not the classification functions yield a hit rate better than chance for the two groups of ministers. When the two groups are of varying sizes in the population and the sample sizes reflect this variation, then it is reasonable to assume that estimates of prior proportional probabilities will result in more correctly classified cases (Huberty, 1984) beyond the level of chance. The proportional chance criteria for the classification procedure with this sample is based on the prior group membership of the two groups, Persisting and Nonpersisting Ministers. The prior probability of cases classified as Persisting Ministers is .665, and the prior probability of cases classified as Nonpersisting Ministers is .335.

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Number of Cases</th>
<th>Predicted Group Membership</th>
<th>Predicted Group Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persisting</td>
<td>383</td>
<td>356</td>
<td>27</td>
</tr>
<tr>
<td>Nonpersisting</td>
<td>193</td>
<td>117</td>
<td>76</td>
</tr>
<tr>
<td>% Persisting</td>
<td></td>
<td>93.0%</td>
<td>7.0%</td>
</tr>
<tr>
<td>% Nonpersisting</td>
<td></td>
<td>60.6%</td>
<td>39.4%</td>
</tr>
</tbody>
</table>

Table 13: Classification Summary

The combination of all variables entered together correctly classified 356 (93.0%) of the 383 Persisting Ministers, and a correct classification of 76 (39.4%) of the Non-persisting ministers. The total classification accuracy rate equals the sum of correct
predictions, 432 divided by the total predictions of known cases, 576 (Klecka, 1980).

This yields a rate of 75.0% of original cases correctly classified.

Because the total number of sample cases correctly classified is probably a biased number for the true hit rate (Huberty, 1984), the researcher needs to estimate the actual hit rate on any future samples of a fixed size. The procedure chosen to estimate this actual hit rate is the leave-one-out method included in the SPSS statistical program. This is one of several external classification procedures used to estimate a true hit rate, and the one deemed most appropriate for this study for its economical and practical applications. This estimate is determined by deleting one case. Next, the classification statistic is formulated on the remaining N-1 cases. The deleted case is then classified. These steps were carried out 576 times for this analysis to determine a hit rate estimate based on a classification of all deleted cases. Table 14 presents the results of the cross-validation procedure.

Table 14: Cross-Validation of Correctly Grouped Cases

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Number of Cases</th>
<th>Predicted Group Membership</th>
<th>Predicted Group Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persisting</td>
<td>383</td>
<td>351</td>
<td>32</td>
</tr>
<tr>
<td>NonPersisting</td>
<td>193</td>
<td>123</td>
<td>70</td>
</tr>
<tr>
<td>% Persisting</td>
<td>91.6%</td>
<td></td>
<td>8.4%</td>
</tr>
<tr>
<td>% NonPersisting</td>
<td>63.7%</td>
<td></td>
<td>36.3%</td>
</tr>
</tbody>
</table>
The number of cases correctly classified in the cross-validation procedure is 91.6% of the Persisting Ministers and 36.3% of the Nonpersisting Ministers. The total hit rate of correctly classified cases on the cross-validation procedures is estimated by summing the total number of correctly classified cases, 421, and dividing by the total predictions of known cases, 576. The overall number of correctly classified cases is 73.1% for the cross-validation procedure.

The hit rate for both the original grouped cases and the cross-validation procedure are both improvements over the estimates of prior probability of chance classification, i.e., Persisting = 66.5%; Nonpersisting = 33.5%. The probability of correctly classifying a Persisting Minister (93.0% vs. 91.6%), though, is greater than the probability of correctly classifying a Nonpersisting Minister (39.4% vs. 36.3%). This result indicates that the unequal co-variances for the two groups appears to have effected the classification procedure, with more cases classified into the larger group with the smaller variances.
CHAPTER 5

DISCUSSION

The outline of this chapter is as follows: Summary and Explanation. The findings of the discriminant analysis are reported and compared with previous research in the field. The variables with the largest absolute correlation with the discriminant function are examined: SEED (Seminary Education), CARREC (Career Recommendation), MS (Marital Status) and SX (Sex of Minister), Scale PD Psychopathic Deviate (MMPI-2), REF (Referral Source), and Scale L (Lie). Variables not reaching significance are explained - Age, Scale PA Paranoia and INVOL (Threatened or Involuntary Termination). Conclusions and recommendations for further research are outlined.

Summary and Explanation

The purpose of this study was to investigate the discriminating and predicting personality, situational and demographic variables distinguishing Persisting and Nonpersisting ministers in a sample of Professional Church Workers who came to Midwest Career Development Center (MCDC) from 1990-1994 to explore a career change. The study examined data collected on 576 clients, 452 males and 124 females.
Based on a review of the literature, twenty variables were selected to investigate their ability to distinguish between the two groups.

Psychological variables were measured with the MMPI-2 when the minister undertook a career assessment. The Professional Ministers in this sample had typically attended seminary, practiced parish ministry and then undertaken a career reassessment. They were identified demographically by the variables Age, Sex, Marital Status, and Seminary Education. These ministers reported varying degrees of job stress and dissatisfaction measured by the situational variables Referral Source, Threat of Termination and Career Recommendation. The Professional Ministers in this sample were serving their denominations in a wide variety of work settings within the church. Those who were identified as Nonpersisting had left church work and were no longer listed on their denomination’s clergy rosters as of 1996.

This study investigated two hypotheses. 1) There is no significant difference in the means of the discriminant scores for the two groups of Persisting and Nonpersisting Professional Church Workers with respect to the 13 MMPI-2 psychological variables and 7 situational and demographic variables of Age, Sex, Level of Education, Marital Status, Career Recommendation, Self/Other Referred and Threat of Termination. 2) The selected variables do not predict beyond the level of chance those who persist and those who do not persist in ministry.

The highest canonical correlation was obtained when all variables were entered into the analysis together. When variables were ordered by absolute size of correlation within the function, the highest seven variables that distinguished between Persisters and
Nonpersisters were SEED (Seminary Education), CARREC (Career Recommendation), MS (Marital Status), Scale PD (Psychopathic Deviate), REF (Referral Source), SX (Sex) and L (Lie Scale). There was one canonical function associated with the two groups with an eigenvalue of .271 and a canonical correlation of .462. This indicates that 21.3% of the variance in the dependent variable (i.e. Persisting and Non-persisting Professional Church Workers) is explained by the function. This study found a statistically significant association between the groups and the discriminant function.

Persisting Professional Church Workers in this sample are more likely to have a seminary education, less likely to have received a career recommendation to leave church ministry, to be married, to be less angry and in conflict with their environment, less likely to have been referred to the career center by others, to be male and to be more frank and accepting of their flaws and those of others. Nonpersisting Professional Church Workers in this sample are distinguished by being less likely to have a seminary degree, more likely to have received a career recommendation to leave church work, more likely not to be married, more likely to be angry and in conflict with their environment, more likely to have received a referral to come to MCDS, less likely to be male and more likely to be judgemental of others.

This study found that psychological, situational and demographic variables moderated the relationship between the appraisal of stress and Persistence/Nonpersistence in ministry. The demographic variables Sex, Level of Education, and Marital Status significantly distinguished the Nonpersisting group from the Persisting group of ministers. The situational variables Career Recommendation and
Referral Source and MMPI-2 scales, PD (Psychopathic Deviate) and L (Lie) also distinguished the two groups. Professional Ministers who did not persist in ministry typically reported more stress related characteristics, in that they were more likely not to have completed a seminary education, were more often female in a male-dominated profession, were more likely to be single than married, had higher mean level elevations on MMPI-2 scales PD Psychopathic Deviate and Scale L (Lie), were more likely to have received a career recommendation to leave ministry and were referred by others for career reassessment.

The findings are consistent with research that indicates an individual’s appraisal of stress is more important than number of life hassles (Lazarus & Folkman, 1984), and that people who change careers may experience more stress in which coping and self-regulatory skills are tested and strained before a resolution is achieved (Perosa & Perosa, 1983). Life events that challenge self-definition (Carver & Scheier, 1999) may be particularly stressful. Stress may occur when people become aware they have misperceived situations, hold conflicting goals and may need to re-evaluate core elements of the self.

This study found that personality factors measured by the MMPI-2 played a significant role in career change. Higher elevations on Scale PD (Psychopathic Deviate) and Scale L (Lie) identified Nonpersisters. Ministers who measure higher on Scale PD are more likely to be in conflict with their environment, be easily angered yet also
energetic and outgoing. Ministers who measure higher on Scale L tend to be more
defensive, overly conventional, rigid and have little insight into the consequences of their
behaviors.

Cherniss (1980) and Cooper and associates (1994, 1995 and 1996) investigated
the interaction of personality factors and stress within organizations. Cherniss found 5
personality factors (neurotic anxiety, Type A syndrome, locus of control, flexibility and
introversion) influenced a person’s coping response to environmental demands. Cooper
and associates found increasing amounts of stress and strain among white collar workers
in the United Kingdom. Specifically, Type A behavior characterized as aggressive, time
pressured and competitive, had a direct causal impact on physical ill-health.

More recent research has identified anger, a specific trait of Type A syndrome as
correlating with higher risks of heart attacks and strokes (Jorgensen, et al., 1996) while
Smith (1992) described a “transactional model” of personality and stress in reference to
angry displays of antagonism and aggressiveness associated with Type A/Hostility. The
display of anger in the work environment, he found, tends to increase exposure to
stressful conditions and physiologic reactivity and diminish coping resources and
important social support.

Ministers who measured higher on Scale PD are more likely to display anger
thereby increase their exposure to stressful conditions, while high scorers on Scale L
would likely provoke anger from others due to their rigidity and defensiveness. Most
recently, Rodgerson (1995), assessing American Baptist clergy, found personality
variables contributed the most in regression analyses predicting burnout — a general job
dysphoria composed of broad-based constructs of controllability and depressive affect. Yet, Rodgerson’s study also concurred with many of the previous studies investigating clergy and stress (Headley, 1992; Malony, 1988; Rayburn, et al., 1986) that concluded that pastors tend to report less stress and burnout than the general population.

This study also found that the scale elevations of both Persisters and Nonpersisters on the MMPI-2 were in the normal, non-significant range, which suggests several conclusions: 1) The ministers in this sample were generally coping adequately with stress in their life. 2) They may have under-reported psychological problems in order to present an image of strength and capable leadership as earlier studies have suggested (Rayburn, et al., 1986). 3) These ministers have a coping style that is not psychologically introspective. They appraise situations as less stressful than the general population because of their focus and training in leading others to get things done. While their ability to suppress stress reactions works positively in many cases, this coping style can prevent them from understanding how environmental demands impact their own and others psychologically. Anger and rigid defensiveness are reactions to situations that are not understood. 4) How personality variables interact with demographic and situational variables in the decision to change careers has yet to be examined.

Demographic and situational variables were more highly correlated with the discriminant function than personality variables. This finding is consistent with Cherniss (1980) conclusion that job structure and organization play a more crucial role in job burnout than personality characteristics, while Rodgerson found situational variables
explained more of the variance on measures of Depersonalization on the Maslach Burnout Inventory. Jud, et al. (1970) and Willette (1997) found demographic and situational variables to distinguish stayers and leavers in professional ministry.

In comparing the present study with research examining vocational commitment with ministers (Hoge, et al. 1981; Jud, et al., 1970; Mills & Koval, 1971; Mills, 1969; Willette, 1997), the findings are generally consistent. Earlier research found personal fulfillment factors to be especially important in ministers' decision to continue in their current position. Professional commitment was found to be negatively impacted by increased age, lower task enjoyment, lower overall satisfaction, greater alienation from congregational leaders, more serious church conflicts, marital crises, health problems and hopelessness in these studies. The exception to these findings is the experience of women in ministry. The experience of stress leading to a decision to stay with or leave professional ministry continues to be impacted by being female in a male-dominated profession.

This study's results also find support in work by O'Reilly and Chatman (1986) with organizational commitment that found two dimensions of the commitment construct, identification and internalization of the organization's values and goals, to predict more prosocial behaviors and lower turnover. Persisting ministers perceived themselves and were perceived by others to have identified and internalized the organization's values.

**SEED (Seminary Education).** The variable SEED (Seminary Education) had a structural coefficient of .768. Persisting ministers are more highly associated with having
a seminary education while Nonpersisting ministers are not. The high correlation of the variable SEED with persistence in ministry suggests that the characteristics of the work organization significantly impact the individual (Cherniss, 1980). The seminary education experience is recognized as an important entry into the profession and may confer protective status in times of stress. A seminary education equips the minister not only with biblical, theological and practical skills but also with a professional identity, network of colleagues and professional status. Having at least a seminary education also suggests Persisting ministers are more likely to have identified with and internalized the organization's values (O'Reilly & Chatman, 1986). This finding is not inconsistent with previous research that found Nonpersisting ministers often having higher levels of education (Jud, et al., 1970; Hook, 1992; Willette, 1997), as the following discussion explains.

Post-graduate education beyond the seminary did not predict staying with or leaving the ministry for the 105 subjects who had additional degrees. Just 24 or 22.8% of the 105 subjects who had additional degrees left ministry in contrast to the 56 of the 70 subjects (80%) who did not have seminary degrees that left. This finding seems to support the advantages of a religious education and the pastoral care given to ministers over the past two decades that encourages them to continue in the profession.

However, when the denominational affiliation of all Nonpersisting subjects was examined, several denominations had greater percentages of their ministers leave ministry. The American Baptist Church and the United Methodist Church, who both have licensed lay people serving as ministers, also had the highest overall percentage of
career explorers leave ministry, 47% and 46% respectively. A majority of Church of the Brethren ministers did not have a seminary education, and they had 41% leave ministry. The United Church of Christ had 43% of their career explorers leave ministry. These findings suggest that career change may become less likely when the minister has devoted time, effort and expense to a vocation.

In contrast, denominations with a common liturgical practice unifying the membership and seminary education as a requirement for ordination tended to have fewer of their career explorers leave. The Evangelical Lutheran Church in America had 19%, the Episcopal Church 13% and the Presbyterian Church U.S.A. 20% of their career explorers leave. The Disciples of Christ ministers, who had the second highest average number of years of education behind the Evangelical Lutheran Church ministers, had 23% of their career explorers leave.

When ministers having post-seminary degrees were examined by denomination, the American Baptist Church had 32% leave, the United Methodist Church, 50%, and the United Church of Christ, 36%. These denominations had a greater percentage of their ministers leave than did the Evangelical Lutheran Church in America with 14%, the Disciples of Christ with 20%, the Episcopal Church, 20%, and the Presbyterian Church USA, 7%. The Church of the Brethren had one minister with a post-seminary degree who persisted. This suggests that theology, ministerial identity and denominational polity may play a more complex role in who stays with or leaves ministry than simply years of education.
When the variable SEED was examined in relationship to SX (Sex) and CURST (Current Status) of the minister, fully 55% of the women versus 19% of the men without a seminary education did not persist in ministry. This suggests that a seminary education, which confers important professional status, may be even more important for women who are considering a career in the church. Without a seminary education, women in this sample are more than twice as likely to leave their present church ministry.

**CARREC (Career Recommendation).** The variable CARREC (Career Recommendation) had a structural coefficient of .499 and the second highest correlation with the discriminant function, and this finding is consistent with previous research that found a combination of clinical and actuarial judgments to distinguish persisters and leavers in the Air Force academy (Lachar, 1974) and foreign mission field (Sprinkle, 1989). Haight (1980) and Comer (1983) also found clinical judgment to correspond with Church Board decisions 40% of the time.

Midwest Career Development Center (MCDS) authorized an internal study conducted by Mills in 1988 to find what variables best predicted CARREC by their counselors. Mills found the counselor’s career recommendations were most closely correlated with counselor assessment ratings of the client’s professional functioning and the client’s referral source (self, recommended or required). In that study, four out of five clients to the center were advised to remain in some form of ministry, with three of the four advised to remain in parish ministry. Those who were currently unemployed,
who did not have a seminary education and who were mandated to come to the center by their denominational boards were more likely to receive a recommendation to leave ministry.

This proportion is consistent with the pattern of recommendations to stay and leave professional ministry in the present sample, i.e. 444 (77.08%) received the recommendation to stay in their present position or change to other church-related work and 132 (22.92%) received the recommendation to leave ministry for secular work. Of the 444 recommended to stay in church work, a total of 197 (34.20%) received the recommendation to stay in their present position and 320 (55.55%) to stay in parish ministry. Of the 444 who received the recommendation to stay in ministry, 120 (27.03%) subsequently left ministry, and of the 132 ministers, who were recommended to leave church work for secular employment, 73 (55.3%) subsequently left. This finding suggests that the Career Recommendation by MCDS was only one of a number of influences on the minister and that the individual’s decision to stay with or leave is an intensely personal and existential experience.

**MS (Marital Status) and SX (Sex).** The variable MS (Marital Status) has a structural coefficient of .305. Marital status and marital problems as an indicator of stress have been identified in several studies of ministers and their families (Mills, 1969; Jud, Mills, & Burch, 1970; Sprinkle, 1989; Ostrander, Henry, & Fournier, 1994; Willette, 1997). The variable SX (Sex), with a structural coefficient of .250, is closely associated with MS (Marital Status). There was a significant relationship between the variables SX
and MS for Nonpersisters, Chi-square (2, n=193) = 13.14, p<0.005. More married women leave ministry (43% to 26%) than married men, whereas men and women who are not married tended to leave at similar rates. Women, who are in ministry, are more often single or divorced than male clergy, according to studies by Carroll, et al. (1983) and Nesbitt (1997). There was a significant correlation between SX and CURST indicating that there was a larger percentage of women overall leaving ministry than men (45% to 30%). How marriage and family influence decisions to stay or leave ministry for men and women appears to be a complex question.

There was a significant relationship between the variables SX and MS for Persisting ministers, Chi-square (2, n=383) = 51.59, p<0.005. Male ministers were more likely to be married and persist in ministry than female ministers (73% to 57%).

<table>
<thead>
<tr>
<th>MARITAL STATUS</th>
<th>MEN</th>
<th>WOMEN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P</td>
<td>N-P</td>
</tr>
<tr>
<td>Married P and N-P</td>
<td>281 (73%)</td>
<td>103 (26%)</td>
</tr>
<tr>
<td>Not Married P and N-P</td>
<td>34 (50%)</td>
<td>34 (50%)</td>
</tr>
<tr>
<td>TOTALS P and N-P</td>
<td>315 (69%)</td>
<td>137 (30%)</td>
</tr>
<tr>
<td>TOTAL MEN &amp; WOMEN</td>
<td>452 (78%)</td>
<td></td>
</tr>
</tbody>
</table>

Table 15: Marital Status Percentages of Persisters and Nonpersisters by Gender

Possible reasons for these differences are speculative at this point. Do cultural attitudes continue to prevent women from gaining full acceptance in a traditional male profession? Do women find combining demanding work and maintaining a marriage and family difficult? Nesbitt and Carroll, et al. raised these questions among the
clergywomen they interviewed, and women clergy in their studies expressed these frustrations. Does marriage afford a similar protection from stress for female as well as male ministers? A greater percentage of married female ministers than married male ministers left the profession in this sample. These are areas for future research studies to investigate.

This finding has important implications for denominations and seminary education. Women comprise one-third to a half or more of the students in mainline Protestant seminaries, yet research indicates they may be leaving ministry at a greater rate (Wilborg and Collier, 1997). This represents a considerable loss of valuable leadership for the church. This finding also supports Chemiss’s (1980) theory that job organization and job structure play a more important role in stress and burnout than personality characteristics.

Do men and women ministers differ in their response to stress? The significant correlations of the variable SX with MMPI-2 scales at the .01 alpha level are Scale MF Masculinity/Femininity (r = -.49), Scale F Frequency (r = .16), Scale D Depression (r = -.12) and Scale HY Hysteria (r = -.11). The high negative correlation with Scale MF is contrary to previous research that found men and women to be similar on this scale (Sullender, 1993; Stone, 1990), although Celeste and Walsh (1997) found incongruent women scored lower on Scale MF Masculinity/Femininity than incongruent men. Even though the correlations on Scales F, D and HY are small, the pattern suggests there may be gender differences in response to stress for persons in the ministry. Women in this sample tended to score higher on Scale F (Frequency) reflecting greater dissatisfaction,
moodiness and restlessness that may indicate a call for help. Men tended to be more depressed but lacked insight into their symptoms, not reporting resentment and anger openly and reacted to stress by developing more physical symptoms.

*Scale PD Psychopathic Deviate.* The variable PD, Scale 4 of the MMPI-2, has a structural coefficient of .255 in the discriminate analysis. A higher score on Scale PD Psychopathic Deviate is associated with Non-persistence in ministry. Graham (1993) describes profiles with higher scores on Scale PD as associated with difficulty incorporating the values and standards of society, rebelliousness toward authority figures, impulsiveness, immaturity, but also extroversion, outgoingness, aggressiveness and absence of a deep emotional response.

This finding is supported by previous research of Persisting and Nonpersisting national and foreign ministers that identified Scale PD Psychopathic Deviate as weakly associated with leaving ministry. Morse (1963) found Persisters and Nonpersisters differed significantly on all clinical scales except Scale PD, whereas Hook (1992) identified Scale PA Paranoia as significantly discriminating between stayers and leavers in the national ministry. Higher levels of Scale PA predicted leavers, and lower levels of most MMPI clinical scales, including Scale PD, increased the prediction of stayers and leavers in the Hook study. Kyne (1992) found higher levels of Scale PA predicted stayers in the foreign mission field. He also found lower levels of Authority/Conflict to predict missionary men stayers. Female missionaries who persevered tended to score lower on Scale PD and PD3 Social Imperturbability.
Does the significantly different score on Scale PD between Persisters and Non-persisters reflect situational and/or personality differences? Two situational variables, REF (Referral Source) and CARREC (Career Recommendation), reached significance in the analysis, suggesting that others also recognized the minister’s personal distress.

Both Persisters and Nonpersisters are similar on most clinical scales, especially the Neurotic triad of Scales HS, D and HY, which suggests Persisting and Nonpersisting ministers in this sample were experiencing at least similar levels of psychological stress and/or burnout (Cherniss, 1980) when they visited the career center. Jud, Mills and Burch (1970) referred to a “causal nexus” of psychological, demographic and situational variables that together predict a subject’s vulnerability, openness and/or interest in leaving ministry. They observed that “many ministers” function within a “delicate balance of hope and frustration which makes them vulnerable to tipping point experiences, and that out of this situation many have moved to a redefinition of self or of ministry which leads to career-change decisions” (p. 91). The higher scores on Scale PD for the Nonpersisting ministers suggest that, as a group, they were more predisposed to view a career change more favorably and to feel confident in taking the risk to change.

Consistent with Willette (1997), who researched male career changers and non-changers in ministry, Nonpersisters in this study were more likely to have poorer collegial relationships (i.e., more referrals by denomination staff) and more stress associated with family and marriage relationships (i.e., more divorced and single ministers). Willette concluded career changers tended to have a greater locus of control for negative experiences and to be greater risk takers. In this study the middle range of
MMPI-2 scores for both Persisting and Nonpersisting ministers suggests that both groups were capable of making self-determining decisions. The higher scales PD Psychopathic Deviate and a higher scale PA Paranoia suggests that the Nonpersisters may have a more self-indulgent and grandiose few of themselves, while denying serious problems. The grandiosity may be a prerequisite for taking a serious career risk, but the higher scales on PD and PA may also mean that the Nonpersisters are no longer attuned to the relationships in their current environment but are already focused on making a change and looking for it.

How are Nonpersisting ministers in this sample similar or different from job-changers in other professions? Both job changers and Nonpersisting ministers share similar characteristics. A higher score on Scale PD is characterized as being more rebellious, experiencing more conflict with authority, being less emotionally attached and being more adventurous. Neapolitan (1980), who compared/contrasted 25 people who made voluntary and radical occupational mid-career changes with non-changers in matched occupations, described Job-Changers as people who were dissatisfied with their present work, perceived their second career to be more congruent with their work orientations, believed they had a greater sense of control of their futures and that they could accomplish their goals. Non-changers tended to believe the risks of failure were too great and were doubtful of their ability to succeed. Kanchier and Unruh (1988) researched psychological characteristics and life experiences of job changers and non-changers. Job changers reported more dissatisfaction with their work, shorter job tenures and a history of job changing. Job changers also reported having recently experienced a
traumatic event, which precipitated their self-appraisal, and they saw their work as a means for self-expression and growth. Non-changers in their study reported more extrinsic work motivation and were generally more concerned with security, power, position, and salary. Finally, Doering and Rhodes (1996) found job leavers to differ from intra-organizational job changers and stayers in that they were less satisfied with their present job, had lower income, fewer promotions, lower role clarity and were in smaller organizations. Leavers were also described as having a high desirability of movement and a high ease of movement. In general, job changing in these studies was viewed positively, with changers reporting more life and job satisfaction than non-changers.

In this study higher scores on Scale PD Psychopathic Deviate and Scale HY Hysteria, the highest mean scales for Nonpersisting ministers, also suggest a greater tendency to project blame, externalize anger and be over-controlled. This personality pattern is associated with the Type A syndrome. Research on personality characteristics, stress and illness have found the Type A behavior patterns to predict poorer health among groups of workers in the United Kingdom (Cooper and Marshall, 1980; Cooper, Kirkcaldy, and Brown, 1994; Bogg and Cooper, 1995; Rout, Cooper, and Rout, 1996) and among human service workers (Cherniss, 1980). People with Type A behavior are prone to a striving, competitive, time-pressured lifestyle and tend to experience more stress-related illnesses especially coronary heart disease. Although Scale PD is not a measure of Type A behavior, people with higher scores on this scale tend to have more problems regulating anger, the primary factor in Type A behavior that is associated with illness (Shapiro, Goldstein and Jammer, 1995).
The Nonpersisting ministers in this sample reported, overall, slightly higher levels of psychological distress as measured by the MMPI-2 scales, demographic and situational variables. While both groups are typically well-adjusted, the Nonpersisting group may perceive more conflict, project blame and externalize anger which could lead them to experience more stress from their environment (Smith, 1992). Consequently, they may be more motivated to find work situations that are not as stressful. The Persisting ministers, on the other hand, have significantly lower scores on Scale PD Psychopathic Deviate. While they also may experience stress in their environment, their problems may not be perceived as quite so acute or incapacitating. This is consistent with Lazarus and Folkman's transactionalist theory of stress. The Persisters may tend to perceive less threat and to judge their resources as sufficient to meet the environmental demand more than Nonpersisters.

Engebretson and Stoney (1995) found support for the notion that the more inflexible the behavioral response patterns are (i.e., either persons who typically always express anger-out and those who typically never express anger-out) the more detrimental the effect on long-term health. Their research subjects were 116 middle-aged men. The implication for clinical practice is that both Persisting and Nonpersisting ministers can be taught a more flexible pattern of anger expression.

**REF (Referral Source).** The variable REF (Referral Source) had a structural coefficient of .255 in the discriminant analysis. The higher score on REF indicates that Nonpersisting ministers were more likely to be referred by others to the career center.

116
Denominational governing boards made the largest percentage of referrals to the career center. Persisting ministers were more likely to be self-referred in this sample.

The variable REF was coded as 0 for the 200 ministers self-referred to the center and 1 for the 227 ministers who received a suggestion to visit the center and 1 for the 149 ministers who were required to visit the center. The absolute number of Persisting and Nonpersisting ministers based on type of referral source is as follows:

<table>
<thead>
<tr>
<th>Referral Source</th>
<th>Persisting Ministers</th>
<th>Nonpersisting Ministers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-referred</td>
<td>150</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>Referral Suggested</td>
<td>142</td>
<td>85</td>
<td>227</td>
</tr>
<tr>
<td>Referral Required</td>
<td>91</td>
<td>58</td>
<td>149</td>
</tr>
</tbody>
</table>

Table 16: Referral Source of Persisting and Nonpersisting Ministers

A total of 44% of the Nonpersisting ministers received a suggested referral to come for career assessment in contrast to 25.9% of the self-referred and 30.1% of the referral required groups. The impact of the referral source on the subsequent decision to stay or leave ministry cannot be inferred from this data, but at the least, these figures suggest that the minister’s decision to stay or leave appears to be largely a voluntary one.

An assumption of this study is that those who came to the center for career assessment did so because they were experiencing dissatisfaction with their present work. Job dissatisfaction was found by Doering and Rhodes (1996), Kanchier and Unruh (1988), Neapolitan (1980), Willette (1997), Mills (1969), Mills and Koval (1971) and
Jud, Mills and Burch (1970) to characterize those who decide to leave their jobs. Mills and Koval found stress impacted on job satisfaction in ministry and was a factor in creating a desire to leave the profession. For 76.3% of this sample others were aware of the ministers' dissatisfaction with their career choice and had either suggested or required them to go to the career center. Yet fully 233 of the 376 ministers identified as Referred by others subsequently stayed in the ministry, and 150 of the 200 self-referred ministers also stayed. Stress and job dissatisfaction were, therefore, not enough to propel these ministers to leave. This supports the Lazarus and Folkman transactionalist theory that appraisal of personal and situational stresses, unique to each minister, ultimately tips them in one direction or the other. Future research with Persisting ministers might focus on what factors led them to stay and how many of those who stayed in ministry did so even though they may have continued to be dissatisfied with their work.

Poorer relationships with colleagues in the organization was found to be a factor in decisions to leave jobs in previous research with both ministers and job changers (Willette, 1997; Kanchier and Unruh, 1988; Jud, Mills and Burch, 1970; Mills, 1969). The REF variable indicates that 69.3% of the 576 ministers received a suggestion or were required to go for career reassessment by their denominational governing boards. For 25.9% of the ministers, they were required to have the assessment. This study supports the finding of earlier research that collegial relationships in the denomination, or lack of them, are an important variable in making a career change.
**Scale L (Lie).** The MMPI-2 variable Scale L (Lie) has a structural coefficient of .196 in the discriminant analysis. Graham (1993) described a higher score on this scale (T > 55) as indicating characteristics of defense, denial and repression. Higher scores indicate individuals who may be trying to create a favorable impression, have little insight into their motivations, show little awareness of how their behavior impacts others and over-evaluate their own worth. Lower Scale L (Lie) score (T < 50) may indicate people who give a frank response to the test items, have confidence in admitting to minor flaws, may have exaggerated negative characteristics, are perceptive and socially reliant, and function effectively in leadership roles.

Earlier studies found the Scale L (Lie) to differentiate between groups of ministers. Lower mean scale scores on Scale L were found to predict persevering ministers (Hook, 1992) and foreign missionaries (Dillon, 1983), although Scale L was not found to significantly distinguish the groups in the discriminant analyses. Sprinkle (1989) found lower Scales L (Lie) and K (Defensiveness) scores for missionary wife and lower Scale SI Social Introversion scores for missionary husbands to predict perseverance. This study supports earlier research that found lower scores on Scale L (Lie) to predict persistence in ministry.

Butcher (1979) observed that job applicants may be motivated to deny problems and respond to test items as though they are better off psychologically than they are. This response set is referred to as “faking good.” Ministers coming for career assessment may adopt a fake good response set in an attempt to deny problems. The clinical scales in a fake good profile cannot be interpreted because the scores do not accurately reflect
the test taker’s psychological profile. Elevated scores on Scale L (Lie) and K
(Defensiveness), i.e. well above 50, and lower scores on Scale F (Frequency), i.e. well
below 50, often identify people who fake good.

Other test takers may be motivated to simply emphasize positive characteristics
and minimize negative ones. This second type of profile would be valid but would be
interpreted as showing more defensiveness. More moderate elevations on Scale L (Lie)
and K (Defensiveness) identify those who are simply defensive. The interpretation of all
the MMPI-2 scales in the profile would determine whether or not the person was faking
good or simply revealing more defensiveness.

Scale L (Lie) is significantly correlated at the .01 alpha level with Scale K
(Defensiveness) (r = .36). The high correlation of Scale L (Lie) and K (Defensiveness) in
this model suggests that these test takers are predominantly defensive, and the profile
interpretation should be corrected for an overly positive emphasis in test responses. Scale
L (Lie) is negatively correlated with Scales D Depression, MF Masculinity/Femininity,
PT Psychasthenia, SC Schizophrenia, MA Hypomania and SI Social Introversion. Scale
L (Lie) is positively correlated with Scales K (Defensiveness), HS Hypochondriasis and
HY Hysteria and Age. Besides defensiveness, this profile suggests a predominant use of
denial, projection and rationalization of problems with an increase in physical symptoms
during times of stress. The profile also suggests there may be secondary gain associated
with the symptoms. Under stress these people would tend to become more dependent
and function at a reduced level. This pattern is also associated with older ministers.
Scale L (Lie) correlates with the variable Age ($r = .17$). Scale L (Lie) has been found to increase with age according to research by Colligan and associates (1983 and 1992) and Aaronson, et al. (1996).

**Variables Not Reaching Significance**

*Scale PA, AGE and INVOL (Threatened/Involuntary Termination).* Two variables that earlier studies had identified as discriminating between Persisters and Nonpersisters in ministry were not identified in this sample. Scale PA Paranoia did not discriminant between the two groups. This finding is contrary to both Hook’s (1992) study that found lower levels on this scale tended to predict perseverance in the national ministry and Kyne’s (1992) study that found higher levels of Scale PA to predict greater perseverance in the foreign ministry. Both Persisting and Nonpersisting ministers had mild elevations on Scale PA Paranoia indicative of persons who are sensitive to what other people think of them, tend to see the environment as demanding and not supportive, are suspicious of other’s motives and may often feel angry and resentful (Graham, 1993). Possible reasons for similar elevations on Scale PA between the two groups may be that the majority of ministers coming to the center were undertaking a career assessment due to dissatisfaction with their present situation, had been referred by others and/or threatened with termination, and therefore, they were experiencing more stress, suspicion and non-support.
As a group Nonpersisting ministers in this study had a slightly higher mean score on Scale PA, that when coupled with a higher Scale PD Psychopathic Deviate, may indicate more grandiosity and passive-aggressive behaviors. Persisting ministers, on the other hand, had higher mean scores on scales HY Hysteria and PA Paranoia. This code pattern suggests these individuals may have more physical complaints, tend not to express angry feelings directly and deny psychological problems (Graham, 1993).

The variable Age also did not reach significance in distinguishing the subjects in this sample. Mills & Koval (1971) and Sprinkle (1989) found age to distinguish between stayers and leavers in ministry. The age range of subjects was more evenly distributed across the life span in those studies. Age was not a discriminating variable in this study because the majority of both groups of subjects were in the mid-career age range of 33-47 (62.17%). The Persisting group tended to be only slightly older than the Nonpersisting group.

The variable INVOL (Involuntary Termination) did not reach significance in the discriminant analysis contrary to the expectation that severe job distress would influence the decision to stay or leave ministry. Kanchier and Unruh’s study (1988) suggested that those making a change have often undergone a recent trauma, while Jud, Mills and Burch (1970) and Willette (1997) identified ministers who left as often having poorer relationships within the denomination and perceived themselves as less effective. There were 189 (32.8%) ministers who were either threatened with termination or already terminated from their positions. Yet, the threat of termination did not influence the decision to stay with or leave ministry as strongly as the other situational variables, REF
(Referral Source) and CARREC (Career Recommendation). The relationship with denominational staff and colleagues becomes a crucial source of support to ministers, perhaps even more important than relationships with lay leaders in the congregation. A strong relationship with denominational staff might make the difference in whether or not the minister is supported in another placement if they were terminated. Support from denominational staff is an affirmation of the minister's shared values and career goals in the larger work of the universal church.

Conclusions and Recommendations

Based on the results of this study, the following conclusions and recommendations are offered to those who work with professional ministers.

1. SEED (Seminary Education) was the variable most highly correlated with the discriminant function. More Persisting ministers had graduated from seminary than Nonpersisting ministers. In comparing Persisters and Nonpersisters across denominations, those organizations that require their ministers to have a seminary education for ordination and full professional status in the church had fewer ministers leave at mid-career. Women without a seminary education were more likely to leave ministry than men without a seminary education. A seminary education provides professional values, goals and status through theological and biblical training that is protective for the minister in times of distress. Seminary educated ministers appear to
have more resilience under stress. Denominations not requiring a seminary education should provide in-service training to their ministers.

2. Career centers such as Midwest Career Development Service (MCDS) can benefit from knowing what situational, demographic and personality characteristics correlate with counselor recommendations to stay with or leave the ministry. The variable CARREC (Career Recommendation) had the second highest correlation with the discriminant function after SEED Seminary Education. Significant at the .01 alpha level, CARREC is correlated with SEED Seminary Education ($r = .21$), MS Marital Status ($r = .16$) and INVOL Threat of Termination ($r = .14$). Most MMPI-2 clinical scales were positively, although only slightly, correlated with CARREC, indicating MCDS counselors were attuned to the psychological distress of the clients when making their recommendations. The results of this study, though, indicate that higher MMPI-2 scale profiles overall are not necessarily associated with greater job dissatisfaction and/or leaving ministry, but that higher elevations on Scale PD Psychopathic Deviate and Scale L Lie identify clients who are at greater risk to leave.

3. The variable INVOL did not reach significance in the discriminant analysis, suggesting that many who were threatened with termination or involuntarily terminated were possibly able to find other placements within their
denomination's ministry. Tracking ministers who leave their career for other work would help MCDS counselors advise and counsel clients to the center.

4. The variable MS Marital Status correlated significantly with the discriminant function, positively identifying Nonpersisters. This study found that marital status impacted men and women differently. Married women ministers were more likely to leave ministry than men were. Single men and women tended to leave the profession at a similar percentage. How gender impacts marital status and career staying and leaving needs further research.

5. Women in this sample who came for career assessment were more identified with their gender role than men (r = -.49), were less likely to be married (r = .34), were less likely to have a seminary education (r = .27) and overall had lower scores on the MMPI-2 scales than men. They also were more likely to leave the ministry. Men and women ministers in this study differed in demographic, situational and personality characteristics that led them to consider a career assessment. Career centers and denominational judicatories need to be aware how gender impacts the minister's interaction with the environment, appraisal of stress and how these differences may influence the recommendations and referrals for assessment women and men receive at counseling centers such as MCDS. This subject is especially timely in that Protestant denominations are reporting women leaving ministry at a higher rate than men (Wilborg and Collier, 1997).
6. Two personality types were identified in this study as more highly associated with non-persistence in ministry. The first type is associated with higher scores on Scale PD Psychopathic Deviate on the MMPI-2. This type is characterized as someone more in conflict with the environment, in conflict with authority and with expressions of anger. Higher scores on PD Psychopathic Deviate were also associated with slightly higher elevations on most of the clinical scales of the MMPI-2 except Scale L consistent with Haight (1980), Comer (1983) and Stone (1990) who found overall elevation of MMPI scores to predict those who did not persist in seminary. Scale PD was also the clinical scale most highly correlated with the variable INVOL (r = .13). Ministers with higher elevations on the MMPI-2 clinical scales, especially anger, might benefit from clinical treatment.

The second personality type identified by the MMPI-2 scales is higher scores on Scale L, a measure of defensiveness and impression management. This scale is correlated positively with Scale K (Defensiveness), Scale HS Hypochondriasis and Scale HY Hysteria and negatively correlated with all other MMPI-2 clinical scales. This scale is also positively correlated with Age. This personality type is described as defensive, lacking in self-awareness, judgmental and desirous of making a favorable impression. High scorers on this scale may not be as open to clinical treatment but could be advised on vocational choices.
7. The importance of collegial and denominational relationships is underscored by the significant positive association of the variable REF in the discriminant analysis. Relationships become especially important for those who are different from the majority group, such as women, and in future studies, different ethnic groups. Even though women were more likely to be self-referred in this study, they were also more likely to leave ministry. Future research should examine what variables distinguish those who persist, those who make intra-organizational changes and those who leave ministry altogether. Permission to track ministers who have visited the career center to assess the reasons and choices for staying and leaving ministry would increase the denominations’ understanding of their needs.

8. Mid-career change in the ministry shows a similar pattern to other professional groups (Willette, 1997; Neapolitan, 1980; Kanchier and Unruh, 1988). How an individual appraises stress and functions in a stressful environment becomes important self-knowledge when making career choices. Future studies are needed using the Harris-Lingo subscales (Kyne, 1992) and the Content scales of the MMPI-2. Ministers contemplating a career change benefit from the support of the organization, availability of choices and opportunities for growth as they move through the process.

9. The results of this prospective study should be interpreted cautiously, especially when applied to individual cases. This was an exploratory ex-post facto research design in
which a set of predictor variables demonstrated utility in classifying cases into groups whose membership was already known. The discriminant function successfully accounted for 21.3% of the variance and correctly classified 73.1% of the ministers in the cross-validation procedure. A prospective study with ministers that attempts to classify a case into an unknown group would be useful with this same clientele.

Additional information concerning an individual’s readiness to make a career change may increase the predictive power of the analysis. Future studies should include the category intra-organizational changers and compare this group with the Persisters and Nonpersisters on selected variables.

The MMPI-2 clinical scales of Persisters and Non-persisters were largely in the normal range, with few statistical and clinical differences between them. Yet, in combination with situational and demographic variables, certain personality characteristics became more useful in discriminating between the two groups. Cherniss found personality characteristics in combination with organizational structure associated with burnout. Cooper and associates examined Type A Syndrome, locus of control and stress in white collar professions and found higher levels of ill-health among persons identified as Type A. Personality characteristics were found to influence job commitment (O’Reilly and Chatman, 1986), job performance (Day and Silverman, 1989) and career success across the life span (Judge, et al., 1999). This study adds to the body of research using the MMPI-2 with professional groups to examine the interaction of personality and stress.
In conclusion, this study does not approve or condemn any minister who chooses to make a career change. The attempt was made to describe and classify Persisters and Nonpersisters in ministry as accurately as possible based on selected variables. There is no assumption that staying with or leaving professional ministry is a reflection of the individual's personal faith in God as revealed in Jesus Christ. An assumption of this study is that ministry, defined as faithfulness to one's calling to proclaim the gospel, can be carried out by laypersons as well as professional ministers. Earlier studies (Jud, et al., 1970) have suggested that ministers who choose to leave professional ministry have not lost or compromised their beliefs but have needed to redefine those beliefs within a different context.

The information contained here ought to be generalized to a limited population of Protestant ministers from the 8 participating denominations of this study who reside in the Midwestern United States and who undertake a career reassessment. The study's findings are not generalizable to ministers of other Protestant denominations or Roman Catholic priests and nuns.
REFERENCES


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