PREDICTING THE RETIREMENT INTENTIONS OF PROFESSIONAL WORKERS

DISSERTATION

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements For the Degree of

DOCTOR OF PHILOSOPHY

By

James L. Knapp, B.B.A., M.S.E.
Denton, Texas
December, 1995
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The entrance of the entire baby-boom generation into the prime-age work force in 1989, along with an increase in the number of professional workers, has produced changes in the composition of the labor force. The impact of these changes will be seen most vividly in the early part of the 21st century when the baby-boom generation begins to leave the labor force.

While research focusing on the retirement intentions of individuals within the general population has been undertaken, only two empirical studies have examined the retirement intentions of professional workers. This study expands the small, existing body of literature focusing on this topic by presenting eighteen hypotheses, grouped into five categories of factors, and testing them with the National Longitudinal Surveys of Labor Market Experience.

While several variables impacted the retirement intentions of professional workers, age and job satisfaction were especially influential. Policy makers in the public and private sectors can respond to the findings by realizing the complex nature of the retirement decision. In addition,
decision makers in the private sector can strive to create more satisfying work environments and offer comprehensive retirement planning programs for professionals who are contemplating retirement.
ACKNOWLEDGMENTS

As the culminating experience of a doctoral program, the dissertation marks the end of a very long journey. Fortunately, several people have helped to make the journey easier and more beneficial.

A special word of thanks goes to Marian Young, Chelsea Reed, Paul Gardner, Lyle and Donna Knapp, and Jayne Knapp for the encouragement they have given in so many different ways. I am grateful to James Yarbrough for his assistance in retrieving and managing the data. I am also grateful to Leslie Stanley-Stevens for her guidance and suggestions throughout my doctoral studies.

I am indebted to my committee members, Rudy Seward, Stan Ingman, David Williamson, and Mary Thibodeaux for their guidance and for their willingness to join the committee so far into the process. A special word of thanks and recognition goes to my major professor, Dale Yeatts, who has guided me through the dissertation, as well as the written and oral exams.

Finally, I want to thank my wife, Tracy, for reminding me of the need to seek a balance between academic endeavors and the joys and challenges of things away from school. Thank you for your assistance in preparing the dissertation and for the many times you encouraged me when I felt overwhelmed.
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CHAPTER 1

STATEMENT OF THE PROBLEM

The composition of the labor force in the United States is changing. In 1989, the youngest members of the baby-boom generation entered the prime-age work force (Fullerton, 1989). The impact of the entire baby-boom generation in the workplace will be seen most vividly over the next 15 years as the group of workers between the ages of 45 and 64 will comprise the fastest growing segment of the labor force (AARP, 1993).

While the growth in this segment of the labor force might be viewed positively due to the more mature and experienced workers it provides, several other changes in the composition of the labor force are also occurring. Each year, more than 2.5 million people retire (Feldman, 1994). The impact of this exodus can be seen most clearly among individuals in their sixth decade. Only 54% of men and 33% of women between the ages of 60 and 64 hold a full-time job (Feldman, 1994). For males, the decision to leave the labor force at an earlier age is the continuation of a trend dating back to the 1950s (Barth & McNaught, 1991; Chirikos & Nestel, 1991; Clark, 1988; Gendell & Siegel, 1992; Nestel, 1985; Sum & Fogg, 1990; U.S. Department of Health and Human Services, 1991). As shown in Table 1, a smaller number of
males between the ages of 55 and 59 have remained in the labor force since the middle of the century, a trend that is not expected to change (Gendell & Siegel, 1992). The median age at retirement during this period has fallen from 66.9 years in 1950 to 62.6 years in 1990 (Gendell & Siegel, 1992).

Although the effects of early retirement are beginning to be seen, the full impact of this trend will become even more apparent early in the 21st century when the baby-boom generation begins to leave the labor force (Best, 1980). As shown in Table 2, the elderly dependency ratio is projected to increase more than 50% between 1990 and 2030 (Best, 1980). This increase means that the cost to society for programs such as Social Security, Supplemental Security Income, and Medicare will grow as the number of individuals remaining in the labor force decreases (Burtless, 1993; Fullerton, 1989).

In addition to the numerical changes in the composition of the labor force, the occupational distribution of workers is also changing. Between 1960 and 1980, the professional labor force more than doubled from 6.2 million jobs to 14.1 million jobs (Sokoloff, 1988). Although the growth will be smaller than in previous years, the number of executive, administrative, and managerial jobs is expected to increase by 26% between 1992 and 2005 due primarily to the growth in
Table 1
Percentage of Older Men and Women in the Labor Force

<table>
<thead>
<tr>
<th></th>
<th>55-59</th>
<th>60-64</th>
<th>65-69</th>
</tr>
</thead>
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<tr>
<td><strong>Men</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>83.4</td>
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</tr>
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<td>92.5</td>
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<td><em>Projected</em></td>
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<td>79.4</td>
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<td>2000</td>
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<td><strong>Women</strong></td>
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<td>1995</td>
<td>58.4</td>
<td>37.9</td>
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<tr>
<td>2005</td>
<td>64.5</td>
<td>40.9</td>
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Source: (Gendell & Siegel, 1992).
retail trades and business services (Silvestri & Lukasiewicz, 1989; Silvestri, 1993). An increase in professional positions is even projected for the manufacturing sector which, overall, is expected to lose more than 300,000 jobs by the year 2000 (Silvestri & Lukasiewicz, 1989; Silvestri, 1993). The professional specialty category of workers, which includes engineers, computer specialists, lawyers, and teachers, is expected to be the second fastest growing occupational group with only service occupations expanding more (Silvestri & Lukasiewicz, 1989; Silvestri, 1993). The impact of this growth is especially relevant to a study focusing on older workers since 57% of workers between the ages of 60 and 64 are in white-collar positions (U.S. Department of Health and Human Services, 1991).

In addition to the shifting numerical and occupational composition, the labor force is also changing in the distribution of workers by sex and ethnicity. By the turn of the century, the labor force will be divided almost evenly between men and women (Barth & McNaught, 1991). Although the number of men and women in the labor force will be about the same by the year 2000, the growth in participation for the two groups has been different (see Table 1). For women, the most substantial increase in labor force participation occurred between 1950 and 1970 (Clark, 1988; Gendell & Siegel, 1992; Szinovacz, 1982). Since then,
Table 2

Elderly Dependency Ratios for Individuals
65 Years of Age and Older*
(Past and Projected)

<table>
<thead>
<tr>
<th>Year</th>
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<th>1940</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>9.7</td>
<td>11.7</td>
<td>14.1</td>
<td>17.4</td>
<td>18.4</td>
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<td>2010</td>
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<tr>
<td>2020</td>
<td>25.8</td>
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<tr>
<td>2030</td>
<td>32.8</td>
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<td>32.6</td>
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<tr>
<td>2050</td>
<td>31.9</td>
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</tbody>
</table>

Source: (Best, 1980)

*the figure given represents the number of individuals over the age of 65 for every 100 individuals between the ages of 20 and 64
the participation rates for women between the ages of 20 and 54 have continued to increase, while women 55 years of age and older have experienced a more gradual increase in their labor force participation rates (Barth & McNaught, 1991; Clark, 1988; Gendell & Siegel, 1992).

By the year 2000, the labor force will also consist of a greater number of individuals from minority groups. Within the next ten years, the number of African Americans and Hispanics are expected to collectively grow to 24% of the labor force, a trend that will continue well into the 21st century (Barth & McNaught, 1991). The decline in the labor force participation rates of older workers and the economic burden it places on social institutions and the younger cohorts who remain in the labor force, strongly suggests the need for research to try to uncover ways of slowing, and perhaps even reversing, the trend toward early retirement. When coupled with the growing number of individuals in professional occupations, the need for research focusing on the age at which professional workers intend to retire becomes even more important.

Despite the growing need for such research, very few scholars have addressed the retirement intentions of professional workers (Kilty & Behling, 1985). Only seven empirical studies have been identified that focus on professionals (Behling, Kilty, & Foster, 1983; Behling & Merves, 1985; Karp, 1989; Kilty & Behling, 1985; 1986;
Richardson & Kilty, 1989; 1992). Of the seven, only two deal directly with the retirement intentions of professional workers and both are based on samples from the same county in Ohio (Kilty & Behling, 1985; Richardson & Kilty, 1992). Thus, the study of the retirement intentions of professional workers is virtually untapped.

The purpose of this study, then, is to examine the predictors of the age at which professional workers intend to retire. The results of this study are relevant not only to public policy makers but also to decision makers in the private sector. Understanding the factors that hasten or impede a professional worker's intentions to retire can be useful information in the on-going struggle to retain experienced professional workers while containing the burgeoning cost of salaries. The data to be used are from the National Longitudinal Surveys of Labor Market Experience.
CHAPTER 2

REVIEW OF THE LITERATURE

Provided below is an overview of the history and growth of retirement as a social institution in the United States. In order to more fully comprehend the magnitude of the decision to leave the labor force, the role of work in the life of an individual and a theory of labor market stratification are also presented. This is followed by a conceptualization of retirement and a discussion of the theoretical framework to be used in the study.

The Role of Work

In their theory of work and retirement, Friedman and Havighurst (1954) have identified five different functions of a job. First, a job provides a source of income. Second, it regulates the worker’s patterns of life activity. Third, a job provides a group with which the worker can identify. Fourth, it establishes fixed patterns of associations. Finally, a job offers the worker a set of meaningful life experiences. Thus, when a person is retired from his or her job, they lose more than just their major source of income. Many friendships and customary routines are also lost.

Despite the fact that a job may serve the same function for everyone, the job does not necessarily provide the same
meaning for everyone (Friedman & Havighurst, 1954). Jobs are located at different levels in the occupational hierarchy based on a number of different things including the amount of specialized training required, the level of income, the amount of prestige, the amount of social contact, and the degree of autonomy (Friedman & Havighurst, 1954). Using Weber's concept of the ideal type, Braude (1975) has suggested that a continuum of occupations exists with "jobs" at one end and "professions" at the other. Historically, professions have been seen as the most coveted positions in the continuum due to the greater amounts of income, prestige, and power that come with them (Braude, 1975). The desire to be seen as a professional has become so intense that members of some occupations have established elaborate rules governing the behavior of its members, created occupational associations, and even changed the name of the occupation to make it sound more prestigious (Braude, 1975).

Theoretical support for the continuum of occupations can be seen in what several scholars have referred to as the dual labor market theory (Blau & Jusenius, 1976; Feldman & Doerpinghaus, 1992; Hayward & Grady, 1986; Hayward, Grady, & McLaughlin, 1988; Kaufman & Spilerman, 1982; Piore, 1975; Tilly, 1991). Consistent with the Marxist perspective, the dual labor market theory suggests that the labor market is divided into primary and secondary sectors (Piore, 1975).
Individuals in secondary sector occupations typically receive lower pay, have poorer working conditions, and have less chance for advancement (Piore, 1975). Members of the secondary labor market also are more vulnerable to changes in the business cycle and to policy changes in national programs such as Social Security (Cornfield, 1981; Farkas & England, 1985; Schervish, 1981; Schervish, 1983). In contrast, primary sector occupations are characterized by higher paying jobs with better working conditions, greater stability, and more opportunities for advancement (Piore, 1975). The primary sector can be further divided into upper and lower tiers. Upper-tier jobs, such as professionals and managers, tend to require more formal education, greater creativity and initiative, and provide greater economic security than lower-tier jobs (Piore, 1975).

The Emergence and Growth of Retirement

Whether working in the primary sector or the secondary sector, the opportunity to retire has been a fairly recent option created by industrial societies (Atchley, 1976). Even though numerous variables such as health, financial security, and government regulations may be involved in an individual’s decision to retire, many people choose to retire simply because it has become a desired and accepted goal within industrial societies (Atchley, 1979; Ekerdt, Vinick, & Bosse, 1989).
Very early societies supported older people only if they performed some useful function (Atchley, 1976). The advent of agricultural societies brought the concept of private property and economic surplus which allowed older individuals to gradually reduce their physical effort while still maintaining control over the farm (Atchley, 1976). Industrialization brought urbanization, technologies that extended life, a detailed division of labor, and the growth of large-scale organizations. The economic surplus provided by industrialization meant that a greater number of individuals could be financially supported even if they were not in the labor force (Atchley, 1976).

By the 1940s, a monetary system of incentives had developed that was used to entice older workers to leave the labor force in order to make room for younger workers (Barfield, 1970). By the late 1950s, retirement had become a full-fledged ideology that had redefined how to think about being old and how to live in one’s later years (Graebner, 1980). The acceptance of retirement began to be based more on the years of work a person had done instead of their physical inability to work (Ash, 1966). The institutionalization of retirement continued to grow as the idea became more widespread that older workers had the right to retire based purely on the number of years they spent in the labor force (Palmore, Burchett, Fillenbaum, George, & Wallman, 1985).
By the late 1970s, the growth of the retirement ideology had peaked and was in decline due to the cost of retirement to society and the counterproductive effects it was having on the labor force (Graebner, 1980; Hayward, Grady, & McLaughlin, 1988). The Age Discrimination in Employment Act of 1967 was amended in 1978 to prohibit mandatory retirement for reasons of age only, before the age of 70 (Atchley, 1987; Rones, 1978). Despite this legislation, and other recent efforts to reverse the trend, the largest drop in labor force participation in the past few decades has occurred in the most developed countries because retirement has become a fully institutionalized aspect of industrialized nations (Sheppard, 1976).

Conceptualizing Retirement

Retirement can be viewed as a process, an event, a social role, or a phase of life (Atchley, 1976). Viewed as a phase of life, retirement is the final part of the occupational life cycle in which individuals are allowed to reduce, or bring to an end, their work responsibilities while still receiving economic support based on their past occupational efforts (Atchley, 1976). Atchley (1976) has divided the phases of retirement into seven sub-phases (Figure 1). The present study is concerned primarily with the activities of persons who are in the age category most often associated with the "near phase of retirement". This phase, which Atchley (1976) considers to be part of the
Taken from Atchley (1976)
preretirement period, can be seen as a time of evaluation in which the individual considers the desireability of retirement. If retirement is seen as being desirable and financially possible, then the individual may develop a "short-timer's attitude" and, subsequently, retire relatively earlier (Atchley, 1976). On the other hand, the individual may conclude that retirement is undesirable or financially unrealistic which would lead him or her to scorn the idea of retirement and remain in the labor force.

Although the sub-phases of retirement provide a convenient aid for viewing retirement, efforts to establish a single, universal definition of retirement have failed (Palmore, 1971). Beehr (1986) has suggested that a single definition of retirement is not only unlikely, but also undesirable. He suggests that retirement can be studied most effectively based on the style of retirement including voluntary vs. involuntary, early vs. on-time, and partial vs. complete. Fields and Mitchell (1984) have suggested that retirement can be viewed as complete withdrawal from the labor force, reduction in hours worked below a specified amount, leaving the "main employer", receiving an employer-provided pension, receiving Social Security, or a more subjective definition. In order to study the predictors of retirement, Palmore, George, and Fillenbaum (1982) and Palmore et al. (1985) looked at seven longitudinal studies and operationalized retirement in five different ways.
including subjective, objective (the number of hours worked or if receiving a pension), age of retirement (before age 65, at age 65, past age 65), and the amount of employment (measured on an interval scale). Each predictor provided statistically significant relationships in at least one longitudinal study.

As mentioned above, the area of greatest interest in this study is the time period that Atchley (1976) refers to as the "near phase of retirement". During this phase, an individual evaluates the overall desirability of retirement and whether or not it is a realistic option in the near future. The operationalization of retirement will be a continuous variable similar to Palmore, Burchett, Fillenbaum, George, and Wallman's (1985) "age of retirement" idea (before age 65, at age 65, past age 65).

Theoretical Models Explaining Retirement

Palmore and his colleagues (1982, 1985), coming from a sociological perspective, have used seven longitudinal data sets with different operationalizations of retirement to test a theoretical model explaining retirement. Their model proposed that five categories of variables were important predictors of retirement. Demographic variables were assumed to be first in the causal chain followed by socioeconomic variables, health variables, job-related variables, and attitude variables (see Figure 2).
Taken from Palmore, George, & Flimmelmann (1982)

Attitudes

Job

Health

SES

Demographic

Retirement

Palmore, George, & Flimmelmann's model of factors predicting retirement

Figure 2
A more recent theoretical framework, developed from a business management perspective, has been proposed by Feldman (1994). He has identified four categories of factors believed to influence the decision to retire early (see Table 3). The first category is termed individual differences and consists of work history, marital status, gender, race, health status, and attitudes toward work and retirement. Feldman (1994) indicates that gender, race, marital status, and health status have received the most attention in the retirement literature. The second category is termed opportunity structures in career path and includes age-related performance declines, discrimination against older workers, the type of industry in which the individual works, and whether the job is in the primary or secondary labor-market. The third category is termed organizational factors and consists of the level of income presently earned, expected retirement income, whether a retirement counseling program is available, and how flexible the employer is in managing older workers. The final category is termed external environment and includes factors dealing with inflation, government aid to older workers, economic growth, and the stability of the Social Security program.

Although Palmore (1985) and Feldman (1994) come from different disciplines and present two distinct theoretical models for explaining retirement, the many similarities between the two allow for a synthesis of these that provides
Taken from Petelman (1994)

<table>
<thead>
<tr>
<th>Factors in Career Path</th>
<th>Opportunity Structures</th>
<th>Differences in Individual Performance</th>
<th>Model of Factors Influencing the Decision to Retire Early</th>
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Table 3
a comprehensive understanding of why professionals retire. Such a synthesis includes the strengths of the previous efforts by incorporating individual factors similar to those found in each of the models, while also including variables from the opportunity structures, organizational factors, and external environment categories in the Feldman model.

These can be organized into five categories of variables (see Table 4). First, a category of demographic factors consisting of age, race, gender, education, number of dependents, tenure, and health is included. Second, a category of attitude factors, which focus on job satisfaction, attitude toward retirement, and self-identity gained from work is included. Third, a category of financial factors, consisting of present income, projected Social Security income, and projected private pension income is included. Fourth, a category of organizational factors, including the philosophy of management toward older workers, the type of industry, and the impact of retirement planning programs is included. Finally, a category focusing on the external environment is included. It is theorized that these five categories of variables are the most crucial to the professional worker’s decision to retire or stay on the job. A conceptual model of the categories is presented in Figure 3.

Although the categories vary slightly from those found in the models of Palmore (1985) and Feldman (1994), the
The number of the hypotheses is in parentheses.

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Factors believed to influence the age at which professional workers retire.

Table 4
Conceptual Model of Categories of Factors Believed to Influence the Age at Which Professional Workers Intend to Retire

Figure 3
majority of the variables remain the same. The few variables that have been excluded are from the opportunity structures in career path category from Feldman's model (see Table 3). The age-related performance decrements hypothesis has been excluded for two reasons. First, Feldman's hypothesis is based partly on health related issues which will be addressed in the demographic factors category (see Table 4). Second, although not immune from performance decrements due to age, professional workers tend to rely less on physical strength and more on intellectual abilities to perform their jobs. Therefore, age-related decrements in job performance should not be as noticeable among older professional workers (Andrisani, 1977; Gustman & Steinmeier, 1985; Mitchell, Levine, & Pozzebon, 1988).

The discrimination against older workers hypothesis has been excluded since the philosophy of management toward older workers hypothesis includes this concept (see Table 4). The hypothesis focusing on primary versus secondary labor-market jobs has also been excluded since professionals are in primary sector jobs. The type of industry has been included in the organizational factors category (see Table 4).

Provided below is a review of the literature for each of the variables. For each variable, a review of the general retirement literature is presented first. Next, a review of any literature that has compared white collar and
blue collar workers is presented. Finally, a review of the studies that have focused on the relationship between the variable under consideration and the retirement intentions of professional workers is included. Each section will conclude with an hypothesis relating the factors to retirement. The hypotheses are then presented, together, in the methods chapter.

Demographic Factors

Gender

Theories of retirement have been based primarily on the labor force experiences of men and, thus, have had limited applicability to women's retirement behavior (Palmore, et al. 1985). The retirement experience of women has only recently begun to receive attention because, historically, women have had low and interrupted labor force participation which has lead to lower income levels during the working years and lower Social Security and private pension incomes during the retirement years (Behling, Kilty, & Foster, 1983; Parnes, 1988; Szinovacz, 1982). In addition, many people have accepted the myth that retirement is a male phenomenon since the work role is seen as being important only to men (Erdner & Guy, 1990; Palmore, 1965).

Despite these traditional views, some scholars have begun to compare the retirement intentions of men and women and have found that they are similar. Commitment to one's job and attitudes toward retirement have been found to be
similar among different samples of men and women (Atchley, 1982; Erdner & Guy, 1990; Prentis, 1980). The emphasis on health status and the receipt of retirement income can be seen for both men and women (Gratton & Haug, 1983; Pampel & Park, 1986). Retirement expectations and planning are increasingly becoming more similar for men and women (Gibson, 1987; Richardson & Kilty, 1989). Even the mean age for receiving initial Social Security benefits are becoming similar. In 1989, 50% of men and 60% of women began receiving their Social Security benefits at age 62 (Gendell & Siegel, 1992).

Although a convergence in the retirement intentions of men and women may be occurring (Hayward, Grady, & McLaughlin, 1988; Rosen & Jerdee, 1985), some scholars continue to find differences based on gender. Women seem to have less positive attitudes toward retirement than men, though the difference is small (Newman, Sherman, & Higgins, 1982). Men are more likely to mention an involuntary reason for retirement, such as health problems, losing their job, or mandatory retirement (Ozawa & Wai-on Law, 1992). Men seem to have a longer time to prepare mentally and financially for retirement (Kroeger, 1982). Even the labor force participation rates of men and women are different with a greater percentage of men over the age of 50 choosing to leave the labor force while a greater percentage of women
are choosing to remain in the labor force (see Table 1) (Gendell & Siegel, 1992).

Although both men and women have increasingly been moving from blue-collar to white-collar positions, the opportunities available within white-collar occupations have not been the same for men and women (Simpson, Simpson, Evers, & Poss, 1982; Sum & Fogg, 1990). Women have traditionally been employed in positions that have not included a pension system, thus reducing the likelihood of receiving a sufficient retirement income (Henretta & O’Rand, 1980; Price-Bonham & Johnson, 1982). As a result, the opportunity to consider retirement and plan for it have not been as readily available for females in white collar positions.

Kilty and Behling (1985) have found that male professionals think about life after retirement more than female professionals and favor an earlier age for retirement than female professionals. In a replication of Kilty and Behling’s study, Richardson and Kilty (1992) have not found similar results.

Gender differences among professionals are also found in the area of retirement financial planning. Male professionals tend to have greater access to private pension income and income from investments than women professionals due primarily to work patterns and career earnings (Behling,
As a result of different career opportunities and earnings, as well as different sources and levels of expected retirement income, the following hypothesis is made:

**Hypothesis 1:** Female professionals will intend to retire at a later age than male professionals.

**Age**

Numerous scholars have found that as workers grow older, they begin to prefer a later age of retirement (Blinder, Gordon, & Wise, 1980; Burkhauser, 1979; Ekerdt, Bosse, & Mogey, 1980; Prentis, 1980; Streib & Schneider, 1971). As an individual nears traditional retirement age, the opportunities and consequences of retirement become more personal and the worker may remain in the labor force due to poor financial planning or simply the desire to continue working (Streib & Schneider, 1971). In a more recent study, Hayward (1986) found that as workers age they begin to realize the limitations of their working life and choose to leave the labor force earlier than required in order to exit on their own terms.

Several researchers have found that individuals in white collar positions tend to retire later than individuals in blue collar positions (Chirikos & Nestel, 1991; Palmore, 1964; Jaffe, 1972; Hardy, 1985). Hayward and Grady (1990),
however, have found that white collar and blue collar workers enjoy the same access to retirement due to collective bargaining for blue collar workers and lucrative pension programs and accumulated savings for white collar workers.

Two studies have focused on the relationship between age and the retirement intentions of professional workers. Kilty and Behling (1985) have found that age is positively associated with thinking about life after retirement and the likelihood of enjoying retirement life. Kilty and Richardson (1992) have found that age is positively associated with the age at which a professional worker plans to retire, as well as the degree to which they think about life after retirement.

Since the positive relationship between the age of a worker and the age at which they plan to retire is seen in the general population, as well as in the literature on white collar and professional workers, the following hypothesis is made:

**Hypothesis 2:** Younger professionals will be more anxious to retire than older professionals.

**Race**

The majority of the retirement research has used mainstream white populations with very few studies focusing on the retirement decisions of individuals in minority groups (Stanford, Happersett, Morton, Molgaard, & Peddecord,
Minority group individuals often face educational and occupational discrimination that can lead to less stable work careers, lower career earnings, and reduced pension benefits (Rhodes, 1982; Stanford, Happersett, Morton, Molgaard, & Peddecord, 1991). Thus, minority group individuals may come to the traditional age of retirement with a different set of factors influencing whether they will remain in the labor force (Rhodes, 1982).

In one of the few retirement studies that has included Mexican Americans, Stanford et al. (1991) found that the majority of the Mexican Americans in their sample were more likely to favor early retirement. Their sample consisted predominately of blue-collar workers. Behling and Merves (1985) included a group of native Puerto Ricans in their study and found that they lacked the financial resources necessary to retire.

Most of the studies of the retirement intentions of minority group individuals have compared African Americans and whites (Burkhauser, 1979; Jackson & Gibson, 1985; Richardson & Kilty, 1992). Some studies have found that the overall retirement intentions of whites and African Americans are quite similar (Morgan, 1980; Parnes & Nestel, 1975; Rosen & Jerdee, 1985), while other studies have found that retirement intentions are different for the two groups (Fillenbaum, George, & Palmore, 1985; Jaffe, 1972; Ozawa & Wai-on Law, 1992; Stanford, Happersett, Morton, Molgaard, &
Peddecord, 1991). It appears that African Americans are caught between the opposing forces of poor health, that pushes them out of the labor force, and discontinuous work careers and low earnings, that require them to continue working beyond the traditional retirement age (Gibson, 1991; Rones, 1978). The root of the problem can be traced to the types of positions in the labor force that have been available to African Americans (Abbott, 1980; Schwab, 1974). Historically, African Americans have held jobs in the occupational structure that have not offered a private pension system (Thompson, 1979). Thus, the retirement years for many African Americans are characterized by a heavy reliance on Social Security and the need to continue to work in order to supplement their income (Jackson & Gibson, 1985; Parsons, 1980a).

The few studies that have compared the retirement intentions of minority group professionals and white professionals have focused primarily on the retirement financial planning of African American and white professionals. African American professionals, as compared to white professionals, have indicated that they are less likely to receive retirement income from investments in stocks and bonds, are less likely to participate in preretirement seminars, and are more likely to continue working in a post-retirement career (Kilty & Behling, 1986; Richardson & Kilty, 1989; 1992).
As a result of different career opportunities and earnings, as well as different sources and levels of expected retirement income, the following hypothesis is made:

**Hypothesis 3:** Minority group professionals will intend to retire at a later age than white professionals.

**Education**

Several scholars have found a negative correlation between the level of formal education completed and the likelihood of retirement (Hardy, 1982; Hardy, 1984; Hayward & Grady, 1990; Ozawa & Wai-on Law, 1992; Parnes & Sommers, 1994; Rosen & Jerdee, 1985). The consistent results seem to be based on the idea that the level of formal education completed is a major determinant of occupational status (Blau & Duncan, 1967; Collins, 1979; Featherman & Hauser, 1978). The opportunity cost of leaving the labor force is greater for more highly educated workers (Sum & Fogg, 1990). In addition, more highly educated people are likely to be in a better position to control their work situation and speed or delay their retirement decision (Streib & Schneider, 1971).

Of all the occupational groups, professional workers have the highest level of educational attainment and below-average retirement rates (Hardy, 1984; Jaffe, 1972). Yet, the influence of education on a professional worker's retirement intentions remains unclear. Most studies of
professional workers have either omitted education as an independent variable (Karp, 1989; Richardson & Kilty, 1992), used it only as a means of describing the sample (Behling, Kilty, & Foster, 1983; Behling & Merves, 1985), or found that it was not a statistically significant variable in the model being tested (Kilty & Behling, 1986; Richardson & Kilty, 1989). However, Kilty and Behling (1985) did find a weak, positive association between education and the age at which a professional intended to retire and whether or not they had considered early retirement.

Although the relationship between education and the retirement intentions of professional workers has not been examined closely, several scholars have found a negative correlation, in the general population, between the level of formal education and the likelihood of retirement. Based on these findings, and the lack of empirical work focusing on the relationship between education and retirement intentions among professional workers, the following hypothesis is made:

**Hypothesis 4:** Professionals with a higher level of formal education will intend to retire at a later age than professionals with a lower level of formal education.

**Marital Status**

Most scholars have found that being married is negatively associated with choosing to retire (Morgan, 1980;
There are, however, some differences based on gender. For men, being married seems to be negatively associated with leaving the labor force (Hayward, Grady, Hardy, & Sommers, 1989; Hayward, Hardy, & Grady, 1989; Jaffe, 1972; Palmore, 1965; Quinn, 1977). For women, the results have been less consistent. Streib and Schneider (1971), in their study of retirement in America, found that among females, single women were more likely to retire. In the same year, however, Palmore (1971), in his study of why people retire, found that married women were more likely to retire than single women. More recently, O’Rand and Henretta (1982) have found results consistent with those of Palmore (1971).

Among professionals, the relationship between marital status and retirement intentions is unclear. Some studies have used marital status only as a way of describing the sample being used in the study (Behling, Kilty, & Foster, 1983; Behling & Merves, 1985). Other studies have included marital status among the independent variables but found that it was not a statistically significant predictor in the model being tested (Richardson & Kilty, 1989; 1992). In one study, a weak negative relationship was found between being married and considering early retirement (Kilty & Behling, 1985).

Although the relationship between marital status and the retirement intentions of professional workers has not
received a great deal of attention, several scholars have found a negative relationship in the general population between being married and the likelihood of retirement. Based on these findings, and the lack of empirical work focusing on the relationship between marital status and retirement intentions among professional workers, the following hypothesis is made:

**Hypothesis 5:** Professionals who are married will intend to retire at a later age than professionals who are not married.

**Number of Dependents**

A consistent finding in the retirement literature is the negative association between the presence of dependent children and the opportunity for early retirement (Henretta, Chan, & O’Rand, 1992; Palmore, George, & Fillenbaum, 1982; Parnes & Nestel, 1975). The absence of dependent children relieves the worker of many of the financial responsibilities of raising a family and reduces the amount of monthly income needed to maintain their current standard of living (Palmore, George, & Fillenbaum, 1982). Thus, retirement, even if it entails a reduction in monthly income, may become more feasible.

Among professional workers, the presence of dependent children has not been found to influence an individual's retirement intentions (Kilty & Behling, 1985; Richardson & Kilty, 1992). The presence of dependent children has been
found, however, to alter the type of financial planning done by professionals. Richardson and Kilty (1989) have found that the absence of dependent children is positively associated with pension income. Kilty and Behling (1986) have found that having fewer children is positively associated with having greater financial assets in bank accounts, annuities, and certificates of deposit.

Although the presence of dependent children has not been found to effect the retirement intentions of professional workers, scholars have found a negative association between the presence of dependent children and the possibility of retiring at an earlier age in the general population. Based on these findings in the general population, the following hypothesis is made:

**Hypothesis 6:** Professionals who have dependent children will intend to retire at a later age than professionals who do not have dependent children.

**Tenure**

The propensity to retire is positively associated with the length of time an individual has spent in their current job (George, Fillenbaum, & Palmore, 1984; Henretta, Chan, & O’Rand, 1992; Palmore, Burchett, Fillenbaum, George, & Wallman, 1985). Longer continuous service is usually equated with higher wages and longevity-based pension benefits which usually makes retirement more financially feasible (Feldman, 1994). In addition, an individual who
works in the same job for an extended period of time may be anxious to escape the day-to-day routine and demands of work by choosing to retire (Hayward & Hardy, 1985).

Among professional workers, longer continuous service in a job has been found to influence the type of financial planning that is done. Kilty and Behling (1986) have found that tenure is negatively associated with venturesome investments. Richardson and Kilty (1989) have found that tenure is positively associated with traditional investments. Longer continuous service in a job has also been found to influence the retirement intentions of professionals workers. Kilty and Behling (1985) have found that tenure is positively associated with intentions to retire early and thinking about life after retirement. In addition, they have found a negative association between tenure and the age at which professionals indicate that people should retire.

Based on the consistent findings in the general population and among professional workers regarding the relationship between tenure and retirement intentions, the following hypothesis is made:

**Hypothesis 7:** Professionals with a longer period of continuous service in their current job will intend to retire at an earlier age than professionals with a shorter period of continuous service in their current job.
Health

One of the more consistent findings in the retirement literature is the positive correlation between poor health and the decision to retire (Henretta, Chan, & O’Rand, 1992; Ozawa & Wai-on, 1992; Sherman, 1985). Although a few studies have found health to be a relatively unimportant variable in the retirement decision, the vast majority of empirical findings indicate that poor health is an important variable in the retirement decision, especially in the decision to retire early (Burtless, 1987; Gordon & Blinder, 1980; Muller & Boaz, 1988; Sammartino, 1987; Sherman, 1985).

Even though the overall relationship between poor health and the decision to retire seems to be fairly certain, one question that remains unclear involves the relationship between health limitations and retirement across occupational categories. Whereas some studies indicate that poor health is an important variable in the retirement decision among nearly all occupational categories (Chirikos & Nestel, 1981; Hardy, 1985; Hayward, 1986; Quinn, 1977), conflicting results are found in other studies. For instance, Hayward and Hardy (1985) have found that health limitations increase the likelihood of early retirement for white collar workers but not for blue collar workers. They conclude that white collar workers can afford to retire.

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1 See Bazzoli, 1985; Goudy, 1982; Schmitt, Coyle, Rauschenberger, & White, 1979; Schmitt & McCune, 1981.
thus making retirement a viable option that will not involve a noticeable decline in income. Hardy (1982) and Quinn (1977) have reported similar findings. Other scholars, however, have reported that since blue collar workers have more physically demanding jobs, they will be more likely to retire due to health reasons (Burtless, 1987; Chirikos & Nestel, 1991; Parnes & Nestel, 1981).

These questions that have been raised about the relationship between poor health and the decision to retire have also been addressed in nationally representative longitudinal studies. Using the National Longitudinal Surveys, Palmore et al. (1985) found that retirement for health reasons was related to lower economic and occupational levels. When the Retirement History Study was used, however, retirement for health reasons was related to higher economic and occupational levels (Palmore et al. 1985).

Only one study of professional workers has included a variable examining the relationship between health and an individual's retirement intentions. Using a qualitative format, Karp (1989) has found that professionals in good health are less likely to be considering retirement. The other studies that have focused exclusively on professional workers have not included health as an independent variable (Behling, Kilty, & Foster, 1983; Behling & Merves, 1985;

Due to the paltry number of studies focusing on the relationship between the health status of professional workers and their retirement intentions, the following hypothesis is based on the literature examining the effects of health status on the retirement intentions of the general population:

**Hypothesis 8:** Professionals who are in good health will intend to retire at a later age than professionals who are in poor health.

**Attitude Factors**

The primary attitude factors reported to effect retirement intentions are job satisfaction, attitude toward retirement, and the self-identity gained from work. Provided below is a review of each of these concepts.

**Job Satisfaction**

Although one of the most consistent findings in the employment literature is a positive relationship between age and job satisfaction\(^2\), Rhodes (1983) has reported that the relationship only holds through age 60. Beyond age 60, the relationship is not as clear because many scholars have been

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unable to study, or are uninterested in studying, the job satisfaction of workers in their sixth decade and beyond.

Within the retirement literature, very few studies have examined the relationship between job satisfaction and the decision to retire (Ekerdt & DeViney, 1993; Mitchell, Levine, & Pozzebon, 1988). The absence of job satisfaction variables in many retirement-decision models is noteworthy because a worker's attitude toward retirement appears to be shaped by the intrinsic meaning of his or her work (Streib & Schneider, 1971). The few scholars that have examined the effect of job satisfaction on retirement intentions have reported an inverse relationship between the two variables with dissatisfied workers choosing earlier retirement (Barfield, 1970; Friedman & Havighurst, 1954; Goudy, Powers, & Keith, 1975; Parnes & Nestel, 1975; Rosen & Jerdee, 1985; Schmitt & McCune, 1981).

Only Karp (1989) has examined job satisfaction among professionals. Based on 72 in-depth interviews, he concluded that the work of professionals, like nonprofessionals, can become boring and repetitive and can lead to lower levels of job satisfaction and the desire to retire early.

Due to the lack of empirical work focusing on the job satisfaction of professional workers, the following hypothesis is based on the studies that have examined the
relationship between job satisfaction and retirement intentions among the general population:

Hypothesis 9: Professionals who are more satisfied with their jobs will intend to retire at a later age than professionals who are less satisfied with their jobs.

Attitude Toward Retirement

Several scholars have found that individuals who have a positive attitude toward retirement will retire at an earlier age than individuals who have a negative attitude toward retirement (Erdner & Guy, 1990; Morrow, 1982; Parnes & Nestel, 1975; Pollman & Johnson, 1979). Using the 1982 New Beneficiary Survey of the Social Security Administration, Sherman (1985) has found that the most popular reason given for leaving the labor force was, simply, having a desire to retire. Atchley (1979) and Ekerdt, Vinick, and Bosse (1989) have reported similar findings. More recently, Parnes and Sommers (1994) have found that men who continue to work into their seventies and early eighties do so due to good health and a strong negative attitude toward retirement.

Although the relationship between an individual’s attitude toward retirement and their retirement intentions has been examined in the general retirement literature, it has not been addressed in studies focusing on specific occupational groups. The two studies of the retirement
intentions of professional workers have included variables regarding the type of activities that the respondent anticipates in their retirement years (Kilty & Behling, 1985; Richardson & Kilty, 1992). However, a variable examining the relationship between an individual’s attitude toward retirement and their retirement intentions has not been included.

Due to the absence of studies addressing the relationship between attitude toward retirement and retirement intentions for individuals in different occupational categories, the following hypothesis is based on the studies that have examined the relationship between attitude toward retirement and retirement intentions among the general population:

**Hypothesis 10:** Professionals who have a more positive attitude toward retirement will intend to retire at an earlier age than professionals who have a more negative attitude toward retirement.

**Self-Identity From Work**

The timing of an individual’s decision to retire has been found to be influenced by the degree to which their sense of self is gained from work (Feldman, 1994). Several researchers have concluded that individuals who receive a greater degree of their self-identity from work will experience more difficulty with the retirement decision due to the anticipated loss of valued activities (Erdner & Guy,
It is also argued that individuals who gain a higher level of their self-identity from activities outside of work will be more inclined to retire at an earlier age (George, Fillenbaum, & Palmore, 1984; Rosen & Jerdee, 1985).

The relationship between self-identity gained from work and the timing of an individual's decision to retire has also been found among professional workers. Kilty and Behling (1985) have found that professionals who associate more with colleagues than non-colleagues are more likely to avoid retirement. Richardson and Kilty (1992) have found a negative relationship between organizational memberships and thinking about life after retirement. In addition, they have found that individuals who are engaged in more social activities and who socialize more with non-colleagues favor an earlier age of retirement. Further, socializing with non-colleagues has been found to be positively associated with thinking about life after retirement.

As a result of the findings in the general population and among professional workers regarding the relationship between the degree to which an individual gains their self-identity from work and their decision to retire, the following hypothesis is made:
Hypothesis 11: Professionals who gain a greater degree of their self-identity from work will intend to retire at a later age than professionals who gain a greater degree of their self-identity from activities outside of work.

Financial Factors

The primary financial factors reported to effect retirement intentions are current income, eligibility for Social Security benefits, and eligibility for private pension benefits. In this section, eligibility for Social Security benefits is considered from the perspective of the income received and how it can affect the timing of a professional worker’s decision to retire. In a later section, Social Security is viewed as an environmental influence in that changes made at the national level can influence a professional worker’s decision to retire.

Provided below is a review of each of the three financial factors.

Current Income

Although a number of researchers have found that higher current income is positively associated with later retirement\(^3\), other scholars have identified a negative relationship. Hayward (1986) has found that higher wages increase the odds of retiring before age 62. His

\(^3\) See Burkhauser, 1980; Burtless & Moffit, 1985; Clark & Johnson, 1980; Mitchell & Fields, 1984; Quinn, 1977.
explanation for the inverse relationship is that current income is highly correlated with pension benefits. Thus, individuals who have a higher level of current income will be in a better position financially to retire due to the level of pension income they can expect. Several other researchers have also identified a negative relationship between current income and expected age of retirement (Boskin & Hurd, 1978; Clark & McDermed, 1986; Fillenbaum et al. 1985; Ruhm, 1990).

Among professionals, four studies have yielded statistically significant results involving current income. Professionals with higher incomes were much more likely to be involved in retirement financial planning (Kilty & Behling, 1986; Richardson & Kilty, 1989). However, the influence of current income on retirement intentions was not as great. Current income was not significantly related to any of the dependent variables in the model of Kilty and Behling (1985). Richardson and Kilty (1992), however, did find a strong positive relationship between current income and the age at which their respondents indicated people should retire. Individuals with higher incomes proposed an older age for retirement than individuals with lower incomes.

Based primarily on the inverse relationship between current income and an individual's retirement intentions
identified in the general population, the following hypothesis is made:

Hypothesis 12: Professionals with higher levels of income will intend to retire at an earlier age than professionals with lower levels of income.

Social Security

Social Security is the largest source of income for many in the retired population with 90% of the elderly receiving some level of benefits (Leonesio, 1993; Reno, 1993; Upp, 1983). Despite the high percentage of older workers who receive Social Security benefits, an on-going debate in the retirement literature centers around the impact of Social Security benefits on the average age of retirement (Mitchell & Fields, 1982; Quinn, 1977; Ruhm, 1989). Some scholars have found that eligibility for Social Security benefits plays a relatively minor role in the retirement decision with other factors, such as health, being more important (Burtless, 1986; Reimers, 1977; Sherman, 1985; Slade, 1987). Other scholars have found that the availability of a retirement income, like Social Security, encourages older workers to leave the labor force, often at an age earlier than necessary (Boskin, 1977; Hausman & Wise, 1985; Leonesio, 1993; Parsons, 1980b; Pechman, Aaron, & Taussig, 1968; U.S. Department of Health and Human Services, 1989).
Even though the effect of Social Security benefits on the timing of the retirement decision is unclear, researchers have found that individuals in lower socioeconomic positions are more reliant on Social Security benefits in retirement than individuals in higher socioeconomic positions (Abbott, 1980; Atchley, 1976). In addition to Social Security benefits, individuals in white collar occupations often have access to private pensions that are unavailable to individuals in blue collar positions (Rhodes, 1982; Stanford, et al. 1991). Blue collar workers tend to rely more heavily on Social Security since it is often their sole means of income in retirement (Reno, 1993).

The influence of Social Security benefits on the retirement intentions of professionals has not been examined. Kilty and Behling (1985) and Richardson and Kilty (1992) both have used an independent variable that has not distinguished between Social Security benefits and private pension benefits. Studies of the retirement financial planning of professionals have combined Social Security and private pension benefits and used them as a dependent variable (Kilty & Behling, 1986; Richardson & Kilty, 1989).

Due to the lack of empirical studies that have addressed the influence of Social Security benefits on the retirement intentions of professionals, the following
hypothesis is based on studies of Social Security eligibility among the general population:

**Hypothesis 13:** Professionals who are eligible to receive Social Security benefits will intend to retire at an earlier age than professionals who are not eligible to receive Social Security benefits.

**Private Pensions**

Private pensions are more likely to be received today than in the past (Hurd, 1990; Reno, 1993; Schieber, 1982; Upp, 1983). Between 1950 and 1980, the number of private pension plans grew from 14,000 to over 600,000 (Kotlikoff & Smith, 1983). In 1990, 44% of elderly individuals were receiving private pension income (Reno, 1993). The number of private pension recipients is expected to increase in the next two to three decades (Reno, 1993; Schieber, 1982).

Although an increasing number of individuals are becoming eligible for private pension benefits, the relationship between eligibility for private pension benefits and retirement intentions is unclear. While some researchers have found that workers who are eligible for private pension benefits are more likely to retire (Gordon & Blinder, 1980; Morgan, 1980; Quinn, 1977), others have found that workers who are eligible for private pension benefits are more likely to remain in the labor force (Kotlikoff, 1979; Reimers, 1977).
Even though the influence of private pension eligibility on retirement intentions is unclear, scholars have found that as an individual's income level increases, so too does the likelihood of receiving private pension benefits (Filer & Petri, 1988; Reno, 1993). Sixty seven percent of individuals in the highest income quintile receive a private pension, while only 8% of individuals in the lowest income quintile have access to a private pension (Reno, 1993). For individuals in highly complex jobs, the presence of some form of pension coverage appears to increase the likelihood of early retirement (Hayward & Hardy, 1985).

The influence of private pension benefits on the retirement intentions of professionals has not been examined. Kilty and Behling (1985) and Richardson and Kilty (1992) both have used an independent variable that has not distinguished between Social Security benefits and private pension benefits. Studies of the retirement financial planning of professionals have combined Social Security and private pension benefits and used them as a dependent variable (Kilty & Behling, 1986; Richardson & Kilty, 1989).

Due to the lack of empirical studies that have addressed the influence of private pension benefits on the retirement intentions of professionals, the following hypothesis is based on studies of private pension eligibility among the general population:
Hypothesis 14: Professionals who are eligible to receive private pension benefits will intend to retire at an earlier age than professionals who are not eligible to receive private pension benefits.

Organizational Factors

In addition to demographic, attitude, and financial factors, organizational factors may affect an individual's retirement intentions. Specifically, the philosophy of management toward older workers, the type of industry, and the programs designed to assist older workers with their retirement decision can influence the timing of an individual's decision to retire.

Philosophy of Management

The philosophy of management toward older workers may influence the retirement intentions of an individual (Feldman, 1994). Organizations with personnel policies that encourage growth and development for younger workers only are directly, or indirectly, encouraging older workers to leave the labor force as early as possible (Rosen & Jerdee, 1986). Organizations that offer older workers retirement packages intended to make retirement more attractive are also encouraging early retirement. Conversely, organizations that provide growth and development opportunities for all employees and that offer options for continued employment through periods of trial retirement, transitions to less demanding jobs, and part-time employment
may retain the services of older workers for a longer period of time by responding to their changing needs and desires (Feldman, 1994; Rosen & Jerdee, 1986).

Due to the absence of studies examining the influence of the philosophy of management toward professional workers and their retirement intentions, the following hypothesis is based on findings from the general population:

**Hypothesis 15:** Professionals who work for organizations with more traditional policies toward older workers will intend to retire at an earlier age than professionals who work for organizations with more flexible policies toward older workers.

**Industry**

Only two published multivariate studies have examined the effects of industry on an individual's retirement intentions (Mitchell, Levine, & Pozzebon, 1988). Hanoch and Honig (1983) have found that older men work significantly fewer hours in manufacturing, mining, construction, and finance and insurance jobs. The reference group in their study was not identified. Burtless (1987) has found that men retire earlier from jobs in mining, construction, transportation, manufacturing, and public administration as compared to men in personal services, professional industries, and agricultural jobs.

Despite the shortage of empirical work in this area, the importance of industry in an individual's decision to
Retirement is important due to the number of organizations in the manufacturing sector that are experiencing downsizing (Feldman, 1994). As organizations attempt to reduce their labor force, individuals approaching retirement age are often prime targets for the downsizing through early retirement incentives (Leana & Feldman, 1992). Older workers often accept the early retirement package because it represents a better alternative than the possibility of being laid-off (Harrison & Bluestone, 1988).

As large firms in declining industries continue to reduce their labor force, understanding the impact that downsizing has on an individual's retirement intentions remains important. Thus, the following hypothesis is made:

**Hypothesis 16: Professionals in downsizing industries will intend to retire at an earlier age than professionals in more economically vibrant industries.**

**Retirement Planning Programs**

Most of the empirical literature that has dealt with retirement planning programs has focused on describing the type and content of the programs or discussing the effect of the programs on post-retirement behavior (Bulger & Gessner, 1992; Charles, 1971; Glamser, 1981; Siegel & Rives, 1978; 1980). Thus, the impact of retirement planning programs on an individual's retirement intentions is uncertain (Feldman, 1994).
Even though the relationship is uncertain, Rosen and Jerdee (1989) have argued that the number of retirement planning programs will, of necessity, grow in the next two to three decades. The abolishment of mandatory retirement, the aging of the baby-boom generation, and economic and technological changes will force employers to rethink their views on encouraging older workers to leave the labor force (Rosen & Jerdee, 1989). In the future, comprehensive retirement planning programs will not only help individuals understand the legal, social, physical, and financial aspects of retirement, they may also provide employers with an opportunity to present flexible alternatives to traditional retirement in an effort to retain older workers (Feldman, 1994; Rosen & Jerdee, 1989).

Despite the uncertainty of the relationship between retirement planning programs and an individual’s retirement intentions, the projected growth of such programs suggests the need to gain an understanding of the relationship. Thus, the following hypothesis is made:

**Hypothesis 17:** Professionals who participate in a retirement planning program will intend to retire at a later age than professionals who do not participate in a retirement planning program.

**External Factors**

Feldman (1994) has suggested that an individual’s retirement intentions may be effected by the external
environment. Uncertainty about economic factors such as inflation and changes in the Social Security program may encourage or impede retirement at a particular age. In the financial factors section, eligibility for Social Security benefits was considered from the perspective of the individual and the effect that this form of retirement income can have on the timing of a professional worker’s decision to retire. In this section, the impact of policy changes in the Social Security Program on the timing of a professional worker’s decision to retire will be considered.

**Inflation**

Although Walker and Price (1976) have found that older workers may be less likely to retire early due to a fear of inflation, more recent studies have not yielded consistent results. Some scholars have found that inflation tends to slow, or even, reverse the trend toward early retirement (Clark & McDermott, 1982; Quinn, 1985). Other scholars, however, have questioned these findings and have suggested that the effect of inflation on the retirement decision is not as direct as previously thought (Morgan, 1981; Parnes, 1981; Parnes, 1988).

**Changes in Social Security**

Similar to the literature on inflation, the effect of changes in the Social Security program on an individual’s decision to retire remains uncertain. Some studies have found that changes in the Social Security program, such as
offering reduced benefits to individuals who retire before age 65, have significantly reduced the labor force participation of older workers (Boskin, 1977; Campbell & Campbell, 1976). Mitchell and Fields (1982), however, have reported that no empirical conclusions can be drawn about the effects of the Social Security program on the retirement decision of older workers. More recently, Leonesio (1993) has found that, due to political constraints, it is unlikely that large scale changes, of the type necessary to dramatically alter retirement patterns, in the Social Security program will ever take place.

The small number of studies examining the effect of external factors on the retirement decision in the general population and the absence of such studies using samples of professional workers suggests that the relationship remains unclear. Despite the uncertainty in the empirical literature, the following hypothesis is made:

**Hypothesis 18:** During times of economic uncertainty, professionals will intend to retire at a later age than during times of greater economic certainty.

**Summary**

The decline in the labor force participation rates of older workers and the economic burden it places on social institutions and the younger cohorts who remain in the labor force, strongly suggests the need for research to try to uncover ways of slowing, and perhaps even reversing, the
trend toward early retirement. When coupled with the growing number of individuals in professional occupations, the need for research focusing on the age at which professional workers intend to retire becomes even more important.

Despite the growing need for such research, only seven empirical studies have been identified that focus on professionals (Behling, Kilty, & Poster, 1983; Behling & Merves, 1985; Karp, 1989; Kilty & Behling, 1985; 1986; Richardson & Kilty, 1989; 1992). Of the seven, only two deal directly with the retirement intentions of professional workers and both are based on samples from the same county in Ohio (Kilty & Behling, 1985; Richardson & Kilty, 1992).

The purpose of this study, then, is to examine the predictors of the age at which professional workers intend to retire. The literature on the factors believed to affect the retirement decision, grouped into the categories of individual factors, attitude factors, financial factors, organizational factors, and external factors has been reviewed and 18 hypotheses have been made. The relationship between the factors and the age at which the professional worker indicates he or she plans to retire will be examined.
CHAPTER 3

METHODOLOGY

This chapter begins with a statement of the research objective followed by a description of the data used for the analysis. Next is a discussion of how the independent and dependent variables were measured. Finally, the statistical analyses that were used are described.

Research Objective

The objective of this research was to examine the influence of factors believed to effect the age at which professional workers intend to retire. A cross-sectional, survey research design using a nationally representative sample was used. The statistical techniques used in the study were discriminant analysis and multiple regression.

Hypotheses

The following hypotheses, presented in the literature review, were tested in the study:

Hypothesis 1: Female professionals will intend to retire at a later age than male professionals.

Hypothesis 2: Younger professionals will be more anxious to retire than older professionals.

Hypothesis 3: Minority group professionals will intend to retire at a later age than white professionals.
Hypothesis 4: Professionals with a higher level of formal education will intend to retire at a later age than professionals with a lower level of formal education.

Hypothesis 5: Professionals who are married will intend to retire at a later age than professionals who are not married.

Hypothesis 6: Professionals who have dependent children will intend to retire at a later age than professionals who do not have dependent children.

Hypothesis 7: Professionals with a longer period of continuous service in their current job will intend to retire at an earlier age than professionals with a shorter period of continuous service in their current job.

Hypothesis 8: Professionals who are in good health will intend to retire at a later age than professionals who are in poor health.

Hypothesis 9: Professionals who are more satisfied with their jobs will intend to retire at a later age than professionals who are less satisfied with their jobs.

Hypothesis 10: Professionals who have a more positive attitude toward retirement will intend to retire at an earlier age than professionals who have a more negative attitude toward retirement.

Hypothesis 12: Professionals with higher levels of income will intend to retire at an earlier age than professionals with lower levels of income.
Hypothesis 13: Professionals who are eligible to receive Social Security benefits will intend to retire at an earlier age than professionals who are not eligible to receive Social Security benefits.

Hypothesis 14: Professionals who are eligible to receive private pension benefits will intend to retire at an earlier age than professionals who are not eligible to receive private pension benefits.

Hypothesis 16: Professionals in down-sizing industries will intend to retire at an earlier age than professionals in more economically vibrant industries.

There are four hypotheses presented in the literature review that were not tested:

Hypothesis 11: Professionals who gain a greater degree of their self-identity from work will intend to retire at a later age than professionals who gain a greater degree of their self-identity from activities outside of work.

Hypothesis 15: Professionals who work for organizations with more traditional policies toward older workers will intend to retire at an earlier age than professionals who work for organizations with more flexible policies toward older workers.

Hypothesis 17: Professionals who participate in a retirement planning program will intend to retire at a later age than professionals who do not participate in a retirement planning program.
Hypothesis 18: During times of economic uncertainty, professionals will intend to retire at a later age than during times of greater economic certainty.

The literature suggests that the concepts addressed in the eighteen hypotheses contribute to the age at which a professional worker intends to leave the labor force. Unfortunately, the data set did not include a measure for four of the concepts. Hypotheses eleven (self-identity gained from work), fifteen (philosophy of management), seventeen (retirement planning programs), and eighteen (external factors) were not tested because the concepts addressed in them were not a part of the data set. The data used in the analyses are described below.

Description of the Data Set

Background

The National Longitudinal Surveys of Labor Market Experience (NLS) is the oldest longitudinal data collection effort in the United States (Manser, Pergamit & Peterson, 1990). In 1966, the Office of Manpower Policy, Research, and Evaluation of the United States Department of Labor contracted with Ohio State University’s Center for Human Resource Research to conduct a longitudinal study of the labor market experiences of four groups (Manser et al., 1990; Parnes, 1984). The original cohorts included men 45 to 59, women age 30 to 44, young men age 14 to 24, and young
women age 14 to 24. A fifth cohort, consisting of youths, was added in 1977. This study utilized the data from the mature men and mature women cohorts.

The initial plan of the NLS was to conduct annual interviews over a five year period. However, after the first survey, the decision was made to conduct bi-annual surveys of the older groups and annual surveys of the younger groups due to budget constraints and the greater mobility of the younger age cohorts (Manser et al., 1990; Parnes, 1984). As the study drew to a close, the decision was made to continue beyond the original timeframe due to the relatively low attrition rates and the widespread interest that had developed in the results of the study (Manser et al., 1990; Parnes, 1984). An additional ten years was added to the study that consisted of bi-annual telephone interviews and one in-depth personal interview (Manser et al., 1990; Parnes, 1984). In 1977, the decision was made to continue the surveys as long as the response rate was acceptable. In 1986, the Bureau of Labor Statistics within the Department of Labor became responsible for the administration of the NLS. Despite this administrative change, the Center for Human Resource Research continued to serve as the management group for the data collection and coding (Manser et al., 1990).
Sampling Procedure

In order to identify the subjects to be used in the panel study, the initial sampling procedure called for a multi-stage probability sample consisting of 485 counties and independent cities representing every state and the District of Columbia (Parnes, 1984). A total of 1,900 primary sampling units were selected and further divided into 235 strata of relatively homogeneous groups based on socio-economic characteristics. Within each strata, a single primary sampling unit was selected to represent the strata. Within each primary sampling unit, a probability sample of housing units was selected to represent the civilian, noninstitutionalized population (Parnes, 1984). In order to have approximately 5,000 respondents for each of the cohorts, an initial sample of 42,000 housing units was needed (Parnes, 1984). Of the 42,000 units, 35,360 were available for interviews with 34,662 households providing usable information for the study (Parnes, 1984). A total of 5,518 men between the ages of 45 and 59 and 5,393 women between the ages of 30 and 44 were designated to be interviewed. A total of 5,020 mature men and 5,083 mature women were actually interviewed (Parnes, 1984).

Use of the NLS in the Present Study

In order to examine the influence of the factors believed to influence the retirement intentions of professional workers, two waves of the NLS, the 1976 data
for mature men and the 1986 data for mature women, were selected. In 1976, members of the mature men cohort were between the ages of 55 and 69. In 1986, members of the mature women cohort were between the ages of 49 and 63. These years were selected for two reasons. First, in their review of studies in which a chronological definition of "older workers" was given, Ashbaugh and Fay (1987) found that age 55 was the most frequently used age with age 60 being the second most frequently used. The sample years selected contained both of these ages. Second, selection of the year was also influenced by the fact that interviews were not conducted annually, nor were the same questions asked each year. In order to be able to include men and women in the sample, age and similarity of the survey instruments were taken into account. Based on these criterion, it was determined that data from the 1976 survey of mature men and the 1986 survey of mature women were the most compatible for the present study.

Two additional criteria were used in assembling the data for the study. First, only individuals between the ages of 55 and 63 were included. Second, only individuals who indicated that they work in professional occupations were included. Based on the conditions mentioned above, a total of 141 cases were available for analysis.
Measures

The variables for the study were taken from the survey instruments used in the 1976 wave of mature men and 1986 wave of mature women files of the NLS (see Appendix A). Listed below is a discussion of the measurement for the dependent variable followed by a review of each of the independent variables.

Age of Retirement

The timing of an individual’s retirement was measured by asking each respondent to indicate the age at which they planned to leave the labor force. The responses were dichotomized into an early retirement group (at age 62 and before) and a later retirement group (at age 65 and later) for the discriminant analyses but returned to a continuous level of measurement for the multiple regressions.

Demographic Factors

Gender, age, race, education, marital status, number of dependents, tenure, and health status were measured with one question each. Respondents were asked to indicate their gender and chronological age. The response options for race were white, black, and other. Regarding education, respondents were asked to indicate the highest level of school they had completed with responses ranging from 7 years to 18 years. Six response categories were available for marital status. Respondents were asked to indicate the number of individuals dependent on their income. Tenure was
measured by asking for the number of years the respondent had worked in their current job.

The health status of the respondents was determined by three self-evaluated health questions. Although some scholars have expressed concern over self-evaluated health status, others (Ferraro, 1980; LaRue, Bank, Jarvik, & Hetland, 1979; Maddox & Douglas, 1973; Mossey & Shapiro, 1982; Stern, 1989) have found it to be a reliable measure. One of the questions was concerned with health limitations and offered the response categories of yes and no. The other two questions were comparative and offered three and four point response categories, respectively.

**Attitude Factors**

Job satisfaction was measured with a single question. Respondents were asked to rate how they feel about their job with four response categories, ranging from liking it very much to disliking it very much, being available.

Attitude toward retirement was measured with three questions. Four response categories, ranging from strongly agree to strongly disagree, were available.

The data did not include a measure for the degree of self-identity that an individual gains from work. Therefore, the concept was not tested in the study.
Financial Factors

Current income was measured with a single question. Respondents were asked to indicate the amount of monthly income they received from their current employer.

Two questions regarding retirement income were used. One asked if Social Security income would be available upon retiring from the labor force. The second question asked about the availability of private pension income since individuals in higher paying jobs are more likely to receive private pension income in retirement (Filer & Petri, 1988; Reno, 1993). Both of these questions had yes and no response categories.

Organizational Factors

The data did not included measures for the philosophy of management toward older workers or the presence of a retirement planning program. Therefore, the concepts were not tested in the study. Industry was measured with a single question. An industry was determined to be downsizing based on criteria used in previous studies (Burltess, 1987; Hanoch & Konig, 1983)

External Factors

The data did not included measures for inflation or changes in the Social Security program. Therefore, the concepts were not tested in the study.
Occupation

Occupational status was determined by one question. The response to the question was coded using a 3-digit occupational code developed for the United States Bureau of the Census in 1960. Only individuals who indicated that they worked in a professional occupation were included in the study.

Data Analysis

The NLS is a voluminous data set that includes five different cohorts, some of which have been observed for more than 20 years. The entire NLS is available on magnetic tapes only. The variables selected for use in the study were downloaded to a computer disk.

Discriminant analysis was performed first in order to determine the factors that were best able to discriminate between those who intended to retire earlier from those who intended to retire later. Subsequently, multiple regressions were performed using the variables identified by the discriminant analyses.

Before performing the multiple regressions, tests for normality, skewness, homoskedasticity, and multicollinearity were conducted. The tests for normality, skewness, and homoskedasticity indicated that the samples were normally distributed with equal variances. In order to identify multicollinearity problems, zero-order correlation coefficients were examined for professional men (Table 5).
Table 5
Correlation Matrix for Professional Men

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Education</th>
<th>Marital Status</th>
<th>Health Limits.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.00</td>
<td>-.11</td>
<td>.12</td>
<td>-.03</td>
</tr>
<tr>
<td>Education</td>
<td>-.11</td>
<td>1.00</td>
<td>.00</td>
<td>-.17</td>
</tr>
<tr>
<td>Marital Status</td>
<td>.12</td>
<td>.00</td>
<td>1.00</td>
<td>.02</td>
</tr>
<tr>
<td>Health Limitations</td>
<td>-.03</td>
<td>-.17</td>
<td>.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>-.02</td>
<td>.07</td>
<td>.26</td>
<td>.03</td>
</tr>
<tr>
<td>Social Security</td>
<td>.15</td>
<td>-.02</td>
<td>-.21</td>
<td>.14</td>
</tr>
<tr>
<td>Age of Retirement</td>
<td>.45*</td>
<td>.22</td>
<td>-.04</td>
<td>-.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Job Satisfaction</th>
<th>Social Security</th>
<th>Age of Retire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.02</td>
<td>.15</td>
<td>.45*</td>
</tr>
<tr>
<td>Education</td>
<td>.07</td>
<td>-.02</td>
<td>.22</td>
</tr>
<tr>
<td>Marital Status</td>
<td>.26</td>
<td>-.21</td>
<td>-.04</td>
</tr>
<tr>
<td>Health Limitations</td>
<td>.03</td>
<td>.14</td>
<td>-.04</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>1.00</td>
<td>.11</td>
<td>-.18</td>
</tr>
<tr>
<td>Social Security</td>
<td>.11</td>
<td>1.00</td>
<td>.21</td>
</tr>
<tr>
<td>Age of Retirement</td>
<td>-.18</td>
<td>.21</td>
<td>1.00</td>
</tr>
</tbody>
</table>

N = 71
2-tailed Signif: * - .001
and professional women (Table 6). No serious multicollinearity (greater than .65) was apparent. As a further test for multicollinearity, each of the independent variables was treated as the dependent variable and the remaining variables were regressed on it. Again, no serious multicollinearity (greater than .80) was apparent.

Discriminant analysis was performed using the factors believed to influence the retirement intentions of professional workers. This analytical approach was chosen because it allows for the identification of the distinguishing characteristics of different groups (Norusis, 1990). Discriminant analysis can be used to study the characteristics of existing groups or to assist in classifying new cases into existing groups (Klecka, 1980). In order to do this, all of the independent variables that are believed to influence the outcome, or dependent variable, are entered into the discriminant analysis. Each of the variables proceeds through a series of admission criterion in order to find the collection of variables that most effectively discriminate between the groups. For each of the variables that are selected, their relative contribution to the discriminant function is provided in the form of standardized canonical coefficients.

The usefulness of the variables, in terms of how effective they are, collectively, in discriminating between the groups, is determined by the canonical correlation
### Table 6

**Correlation Matrix for Professional Women**

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Education</th>
<th>Marital Status</th>
<th>Race</th>
<th>Job Satis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.00</td>
<td>-.03</td>
<td>.01</td>
<td>.09</td>
<td>.05</td>
</tr>
<tr>
<td>Education</td>
<td>-.03</td>
<td>1.00</td>
<td>.11</td>
<td>-.01</td>
<td>-.13</td>
</tr>
<tr>
<td>Marital Status</td>
<td>.01</td>
<td>.11</td>
<td>1.00</td>
<td>.12</td>
<td>.04</td>
</tr>
<tr>
<td>Race</td>
<td>.09</td>
<td>-.01</td>
<td>.12</td>
<td>1.00</td>
<td>.27</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>.05</td>
<td>-.13</td>
<td>.04</td>
<td>.27</td>
<td>1.00</td>
</tr>
<tr>
<td>Att./Retirement</td>
<td>.11</td>
<td>.00</td>
<td>-.13</td>
<td>-.09</td>
<td>.06</td>
</tr>
<tr>
<td>Current Income</td>
<td>.01</td>
<td>.51*</td>
<td>-.04</td>
<td>.14</td>
<td>.14</td>
</tr>
<tr>
<td>Age of Retirement</td>
<td>.42*</td>
<td>.07</td>
<td>.19</td>
<td>-.23</td>
<td>-.28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Att./Retirement</th>
<th>Current Income</th>
<th>Age of Retirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.11</td>
<td>.01</td>
<td>.42*</td>
</tr>
<tr>
<td>Education</td>
<td>.00</td>
<td>.51*</td>
<td>.07</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-.13</td>
<td>-.04</td>
<td>.19</td>
</tr>
<tr>
<td>Race</td>
<td>-.09</td>
<td>.14</td>
<td>-.23</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>.06</td>
<td>.14</td>
<td>-.28</td>
</tr>
<tr>
<td>Att./Retirement</td>
<td>1.00</td>
<td>-.07</td>
<td>.17</td>
</tr>
<tr>
<td>Current Income</td>
<td>-.07</td>
<td>1.00</td>
<td>-.27</td>
</tr>
<tr>
<td>Age of Retirement</td>
<td>.17</td>
<td>-.27</td>
<td>1.00</td>
</tr>
</tbody>
</table>

\(N = 70\)

2-tailed Signif: \(* - .001\)
coefficient and the percentage of cases that are correctly classified. The canonical correlation coefficient reveals how well the discriminant function, generated from the independent variables, is able to correctly classify the cases into one of the two groups. A value near zero means that the discriminant function, and consequently the independent variables, are minimally related to the groups. A canonical correlation coefficient of 1.0 would mean that when a researcher has information on all of the independent variables, he or she can successfully determine within which group each individual case will fall. Thus, the higher the canonical correlation coefficient, the better the independent variables are at predicting whether the subject will be in group one or group two.

To explain this another way, the percentage of cases correctly classified is a test of the relative worth of the discriminant function and of the ability of the independent variables to predict to which group a subject will belong. In this study, the discriminant function shows the degree to which the independent variables are able to predict whether the older professional worker desires early or later retirement. If, in a two group discriminant analysis, the percentage of cases correctly classified is near 50%, then the discriminant function is seen as being weak since it is likely that half of the cases could have been correctly classified by chance alone. As the percentage of
cases correctly classified moves toward 100%, the discriminant function is seen as being more useful because it is able to more effectively predict within which group the subjects will be.

If the discriminant function results in a high canonical correlation coefficient, then it becomes advantageous to take a second step and determine the degree to which any single independent variable is correlated with the discriminant function. The correlation coefficients that are obtained are simple bivariate correlations between each of the independent variables and the discriminant function. If there is a perfect correlation between an independent variable and the discriminant function, then this tells the researcher that the single independent variable is as effective at predicting within which group the subjects will be as the entire set of independent variables that created the discriminant function. Thus, independent variables that are highly correlated with the discriminant function can be thought of as better predictors than independent variables that are less correlated with the discriminant function.

In order to maximize the number of correct classifications, seven assumptions should be met (Klecka, 1980). First, at least two groups must be used. Second, there must be at least two cases per group. Third, there is no limit on the number of discriminating variables as long
as it is less than the total number of cases minus two.

Fourth, the cases in the sample should come from a normal population. Fifth, the population covariances should all be equal. Sixth, the discriminating variables should be measured at the interval or ratio level. Finally, although the variables should be linearly related, no discriminating variable may be a linear combination of other discriminating variables.

The results of discriminant analysis are similar, in many ways, to the results yielded by multiple regression. In multiple regression, the R squared value is, in essence, a measure of relatedness between the independent variables and the dependent variable. A high R squared value means the independent variables are more highly correlated with the dependent variable because they are effective in explaining a greater percentage of the variance in the dependent variable. Similarly, the canonical correlation coefficient in discriminant analysis is a measure of the relatedness between the independent variables in the discriminant function and the groups, or the dependent variable. The beta weights, in multiple regression, indicate the amount of change in the dependent variable for each standard unit of change in the independent variable. A beta weight is a bivariate correlation between each of the independent variables and the dependent variable and allows the researcher to determine the effects of the independent
variables relative to one another. In discriminant analysis, the correlation coefficients are bivariate correlations that describe the relationship between each independent variable and the discriminant function and also allows the researcher to determine the effects of the independent variables relative to one another.

Despite the similarities between the two, discriminant analysis and multiple regression are often used for different purposes. Discriminant analysis is a helpful statistical technique when the area under investigation is relatively new. It is able to sift through a large number of independent variables and select the ones that most effectively discriminant between the groups without the multicollinearity problems associated with multiple regression.

Multiple regression, on the other hand, is a statistical technique that is useful in developing and testing research models. Knowing that there are differences between the groups is important early in the research process. Often, though, a researcher desires to go beyond that and to begin to explore the possibility of causal relationships between the independent and dependent variables. Multiple regression is a statistical technique that can be used for this purpose.

In this study, discriminant analysis has been used to identify the variables that most effectively discriminate
between the group of professionals who plan to retire at age 62 or an earlier age and the group of professionals who plan to retire at age 65 and later. Then, multiple regression has been used to develop and test a theoretical model based on the relationship between the independent variables and the retirement intentions of professional workers that were initially identified in the literature and subsequently supported by discriminant analysis. In order to appropriately use multiple regression, the dependent variable was returned to a continuous measure instead of the two groups that were used in the discriminant analysis.

Limitations

This study extends the body of retirement research by including females and members of a minority group and by focusing on an occupational group, professionals, that have been overlooked in the retirement literature. Statistical analysis was conducted on a nationally representative data set.

Despite the virtues of the study, limitations do exist. Specifically, the use of secondary data can be problematic. Although secondary analysis is less expensive and more time-efficient than gathering primary data, concerns about validity and specification error do exist (Babbie, 1986). Secondary data may be fairly similar to the information needed by a subsequent user but it may not be addressing exactly the same concept. The subsequent user must make a
determination regarding the validity of the measure to his or her research purposes (Babbie, 1986). Further, the existing data set may not allow researchers to examine all variables believed to be important.

A second limitation of the study is also related to the use of secondary data. Several of the factors in the study have been measured with a single question. It is preferable to ask several questions about the concept being studied in order to test the reliability of the respondent’s answers (Babbie, 1986). Unfortunately, only one question was available for twelve of the fourteen concepts (Appendix).

A third limitation of the study is that not all of the factors believed to effect the age at which professional workers intend to retire will be considered, often referred to as specification error. Consequently, the results of the study should be interpreted with an appropriate degree of caution.

A fourth limitation of the study is the possibility of a period effect. A period effect occurs when the results of a study are influenced by factors specific to the particular time period from which the data have been gathered (Glenn, 1977). The ten year difference between the 1976 wave of the men’s file and the 1986 wave of the women’s file introduces the possibility that factors other than those being addressed in the analyses may be influencing the results.
A fifth limitation of the study is the possibility of a cohort effect. The sample of men consists of men who were between the ages of 45 and 59 in 1966 while the sample of women consists of women who were between the ages of 30 and 44 in 1967. The fifteen year age difference introduces the possibility that the attitudes and expectations of the professionals in the two samples may be different due to the different time period in which the individuals were born and raised.

Finally, the size of the sample is a limitation of the study. Ideally, all of the professionals from the sample of men and the sample of women would be included in the analyses. Unfortunately, many did not respond to the question regarding the age at which they intend to retire. Thus, the discriminant analyses were done with 63 men and 63 women while the multiple regressions were done with 71 men and 70 women.
CHAPTER 4

FACTORS AFFECTING OLDER PROFESSIONAL WORKER’S INTENTIONS TO RETIRE: RESULTS FROM ANALYSES OF NATIONALLY REPRESENTATIVE SAMPLES OF OLDER PROFESSIONAL MEN AND WOMEN

Provided below are the results of the discriminant analysis and multiple regression for the samples of professional men and professional women. The discriminant analysis and multiple regressions of the sample of men are presented first. Next, the discriminant analysis and multiple regressions of the sample of women are presented.

Results of the Discriminant Analysis of A Nationally Representative Sample of Older Professional Men

Of the fourteen variables for which a measure was available, seven were included in the analysis of professional men: age, race, education, marital status, health, job satisfaction, and eligibility for Social Security (Table 7). Gender was controlled since the sample consisted entirely of males. Eligibility for a private pension was not included in the discriminant analysis since every member of the sample was eligible to receive a private pension. The five remaining variables (number of dependents, tenure, attitude toward retirement, current income, and industry) were originally included in the
Table 7
Variables Available for Inclusion in the Discriminant Analyses

<table>
<thead>
<tr>
<th>Variable/Hypothesis</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (H1)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Age (H2)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Race (H3)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Education (H4)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Marital Status (H5)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Number of Dependents (H6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure (H7)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Health (H8)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Attitude Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction (H9)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Attitude Toward Retirement (H10)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Financial Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Income (H12)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Social Security (H13)</td>
<td>X</td>
<td>#</td>
</tr>
<tr>
<td>Private Pension (H14)</td>
<td>#</td>
<td>X</td>
</tr>
<tr>
<td><strong>Organizational Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry (H16)</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

* - gender was controlled by conducting separate analyses of professional men and professional women

X - the variable was included in the discriminant analysis

# - although the variable was available it was not considered by discriminant analysis in obtaining the discriminant function since every member of the sample had indicated "yes" to the question
analysis. It became apparent, though, that each of the five variables was characterized by a high number of missing values. Several attempts were made to include the variables in the analysis. However, the addition of even one of the variables with the other seven reduced the number of valid cases that could be used in the analysis to a point at which there were not enough cases to proceed (cases remaining ranged from 0 to 25). Including two or more of the variables with the other seven variables reduced the number of cases even more. Thus, the decision was made to omit five variables from the analysis of professional men: number of dependents, tenure, attitude toward retirement, current income, and industry.

An examination of the results shows that the canonical correlation coefficient (Table 8) in the sample of males was .57 with 77% of the cases correctly classified. This suggests that the discriminant function was moderately effective, at best, in placing the professional men into the correct retirement group.

The correlation coefficient between each independent variable and the discriminant function showed that six of the seven variables had relatively high correlation coefficients. The one exception was marital status.

Age of the respondent was the most highly correlated variable with the discriminant function with a value of .53. This suggests that as a male's chronological age increased
Table 8

Discriminant Analysis for Professional Men* Preferring Early or Later Retirement

Canonical Correlation Coefficient:  .57

Correlation Coefficients:**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.53</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>-.38</td>
</tr>
<tr>
<td>Eligibility for Social Security</td>
<td>.31</td>
</tr>
<tr>
<td>Health Review</td>
<td>.25</td>
</tr>
<tr>
<td>Education</td>
<td>.21</td>
</tr>
<tr>
<td>Health Limitations</td>
<td>.18</td>
</tr>
<tr>
<td>Health Condition</td>
<td>-.12</td>
</tr>
<tr>
<td>Race</td>
<td>-.11</td>
</tr>
<tr>
<td>Marital Status</td>
<td>.07</td>
</tr>
</tbody>
</table>

Percent of Cases Correctly Classified: 77%

N = 63

* - Two groups of professional men were examined. Those who indicated a preference for an earlier age of retirement (age 62 and earlier) were assigned to group 1. Those who indicated a preference for a later age of retirement (age 65 and later) were assigned to group 2.

** - Variables that are highly correlated with the discriminant function can be thought of as better predictors than variables that are less correlated with the discriminant function.
so too did his propensity to prefer later rather than earlier retirement. Job satisfaction had the second highest correlation coefficient (-.38). This suggests that males who reported higher job satisfaction were more likely to belong to the later retirement group. The positive relationship between eligibility for Social Security and the discriminant function (.31) was an indication that males who were not eligible to receive Social Security benefits were more likely to prefer retiring later rather than sooner.

The health variable was operationalized with three questions that examined the influence of health on the retirement intentions of professional workers. The positive relationship between the first health question and the discriminant function (.25) was an indication that males who were in better health, then they had been in the past, were more likely to belong to the later retirement group. The positive relationship between the second health question and the discriminant function (.18) was an indication that males who did not have a self-assessed health limitation were more likely to prefer a later age of retirement. The negative relationship between the third health question and the discriminant function (-.12) was an indication that males whose health was perceived to be better than their peers were more likely to prefer later rather than earlier retirement. Thus, as a whole, the health measures consistently indicated that males who considered themselves
to be in good health were more likely to prefer a later age of retirement.

The positive relationship between education and the discriminant function (.21) was an indication that males who had received more formal education were more likely to belong to the later retirement group. The negative relationship between race and the discriminant function (-.11) was an indication that males who were Anglo American were more likely to prefer a later age of retirement. The positive relationship between marital status and the discriminant function (.07) was an indication that males who were married were more likely to belong to the earlier retirement group.

In summary, seven of the fourteen variables for which a measure was available were included in the analysis of males (Table 7). The findings indicate that professional men intending to retire later were older, more satisfied with their job, not eligible to receive Social Security benefits, healthier, more highly educated, non-white, and single. However, it should be noted again, that these factors were only moderately successful at discriminating between the two groups.

Results of the Multiple Regression Analysis of A Nationally Representative Sample of Older Professional Men

The variables used to derive the discriminant function were entered into a multiple regression (Figure 4). The
Model of factors influencing the age at which professional men intended to retire

Figure 4
multiple regression analysis of 71 men produced an adjusted 
$R$ squared of .28 (Table 9). Of the variables used in the 
multiple regression, three had beta scores that were 
statistically significant at the desired level. Age, 
education, and job satisfaction had beta scores greater than 
or equal to .21 and were statistically significant at the 
desired level. This suggests that professional men who 
intended to retire later were older, more highly educated, 
and more satisfied with their jobs. Age was by far the most 
important single factor affecting a professional man's 
intention to remain in the labor force (beta = .45) followed 
by education (beta = .29).

Results of the Discriminant Analysis of A Nationally 
Representative Sample of Older Professional Women

Of the fourteen variables for which a measure was 
available, ten were included in the analysis of professional 
women: age, race, education, marital status, health, job 
satisfaction, eligibility for a private pension, attitude 
toward retirement, current income, and industry (Table 7). 
Gender was controlled since the sample consisted entirely of 
females. Eligibility for Social Security was not included 
in the discriminant analysis since every member of the 
sample was eligible to receive Social Security. The two 
remaining variables (number of dependents and tenure) were 
originally included in the analysis. It became apparent, 
though, that both of the variables were characterized by a
Table 9

Multiple Regression Analysis for Professional Men

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.89</td>
<td>.21</td>
<td>.45***</td>
</tr>
<tr>
<td>Education</td>
<td>.57</td>
<td>.21</td>
<td>.29**</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>-1.66</td>
<td>.85</td>
<td>-.21*</td>
</tr>
<tr>
<td>Social Security</td>
<td>2.86</td>
<td>1.75</td>
<td>.18</td>
</tr>
<tr>
<td>Health Limits.</td>
<td>.01</td>
<td>1.53</td>
<td>.00</td>
</tr>
<tr>
<td>Marital Status</td>
<td>.05</td>
<td>2.02</td>
<td>.00</td>
</tr>
</tbody>
</table>

Adjusted R Square  .28

N = 71

* Significant at the .10 level
** Significant at the .01 level
*** Significant at the .001 level
high number of missing values. Several attempts were made to include the variables in the analysis. However, the addition of either one of the variables with the other ten greatly reduced the number of valid cases that could be used in the analysis (remaining cases ranged from 25 to 54). Thus, the decision was made to omit the number of dependents and tenure variables from the analysis of professional women.

An examination of the results shows that the canonical correlation coefficient (Table 10) in the sample of females was .56 with 79% of the cases correctly classified. This suggests that the discriminant function was moderately effective in placing the professional women into the correct retirement group.

The correlation coefficient between each independent variable and the discriminant function showed that eight of the variables had relatively high correlation coefficients. The exceptions were eligibility for a private pension and industry. One of the health measures had a low correlation with the discriminant function but the other two health measures had higher correlations. The same can be said for the measures of a female professional's attitude toward retirement. One measure had a low correlation with the discriminant function but the other two measures had higher correlations.
Table 10
Discriminant Analysis for Professional Women*
Preferring Early or Later Retirement

Canonical Correlation Coefficient: .56

Correlation Coefficients: **

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.49</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>-.42</td>
</tr>
<tr>
<td>Race</td>
<td>-.34</td>
</tr>
<tr>
<td>Current Income</td>
<td>-.32</td>
</tr>
<tr>
<td>Attitude Toward Retirement (should work)</td>
<td>-.28</td>
</tr>
<tr>
<td>Attitude Toward Retirement (pleasant)</td>
<td>.27</td>
</tr>
<tr>
<td>Education</td>
<td>.22</td>
</tr>
<tr>
<td>Marital Status</td>
<td>.18</td>
</tr>
<tr>
<td>Health Review</td>
<td>.15</td>
</tr>
<tr>
<td>Health Condition</td>
<td>-.11</td>
</tr>
<tr>
<td>Attitude Toward Retirement (foolish)</td>
<td>.06</td>
</tr>
<tr>
<td>Eligibility for a Private Pension</td>
<td>.05</td>
</tr>
<tr>
<td>Health Limitations</td>
<td>.03</td>
</tr>
<tr>
<td>Industry</td>
<td>-.02</td>
</tr>
</tbody>
</table>

Percent of Cases Correctly Classified: 79%

N = 63

* - Two groups of professional women were examined. Those who indicated a preference for an earlier age of retirement (age 62 and earlier) were assigned to group 1. Those who indicated a preference for a later age of retirement (age 65 and later) were assigned to group 2.

** - Variables that are highly correlated with the discriminant function can be thought of as better predictors than variables that are less correlated with the discriminant function.
Age of the respondent was the most highly correlated variable with the discriminant function with a value of .49. This suggests that as a female's chronological age increased so too did her propensity to prefer later rather than earlier retirement. Job satisfaction had the second highest correlation coefficient (-.42). This suggests that females who reported higher job satisfaction were more likely to belong to the later retirement group. The negative relationship between race and the discriminant function (-.34) was an indication that females who were Anglo American were more likely to prefer a later age of retirement. Current income was inversely related to the discriminant function (-.32), suggesting that females who reported higher income were more likely to indicate a preference for earlier retirement.

"Attitude toward retirement" was operationalized with three attitude questions. The first attitude question was negatively associated with the discriminant function (-.28). This suggests that females who thought more highly of working individuals, as opposed to retired individuals, were more likely to belong to the later retirement group. The second attitude question was positively related to the discriminant function (.27). This suggests that females who considered retirement to be a pleasant time of life were more likely to prefer earlier rather than later retirement. The third attitude question was positively related to the
discriminant function (.06). This is an indication that females who felt that people should retire when they can afford to were more likely to belong to the earlier retirement group. Each of the attitude toward retirement measures indicated that female professionals who viewed retirement favorably were more likely to belong to the earlier retirement group.

The positive relationship between education and the discriminant function (.22) was an indication that females who had received more formal education were more likely to belong to the later retirement group. The positive relationship between marital status and the discriminant function (.18) was an indication that females who were married were more likely to belong to the earlier retirement group.

The health variable was operationalized with three different questions that examined the influence of health on the retirement intentions of professional workers. The positive relationship between the first health question and the discriminant function (.15) was an indication that females who were in better health, then they had been in the past, were more likely to belong to the later retirement group. The negative relationship between the second health question and the discriminant function (-.11) was an indication that females whose health was perceived to be better than their peers were more likely to prefer later
rather than earlier retirement. The positive relationship between the third health question and the discriminant function (.03) was an indication that females who did not have a self-assessed health limitation were more likely to prefer a later age of retirement. Thus, the health measures indicated that females who considered themselves to be in good health were more likely to prefer a later age of retirement.

The positive relationship between eligibility for a private pension and the discriminant function (.05) was an indication that females who were not eligible to receive private pension benefits were more likely to prefer retiring later rather than sooner. However, our confidence in this conclusion is weak due to the small correlation with the discriminant function. The negative relationship between industry and the discriminant function (-.02) was an indication that females who worked in down-sizing industries were more likely to prefer a later age of retirement. Here again, our confidence in this conclusion is weak due to the small correlation with the discriminant function.

In summary, ten of the fourteen variables for which a measure was available were included in the analysis of females (Table 7). The findings indicate that professional women intending to retire later were older, more satisfied with their job, non-white, receiving lower levels of income, less enthusiastic about the prospect of retiring, more
highly educated, single, healthier, not eligible to receive a private pension, and working in a down-sizing industry.

Results of the Multiple Regression Analysis of A Nationally Representative Sample of Older Professional Women

The variables used to obtain the discriminant function were entered into a multiple regression (Figure 5). The multiple regression analysis of 70 women produced an adjusted R squared of .37 (Table 11). Of the variables used in the multiple regression, five had beta scores that were statistically significant at the desired level. Age, current income, job satisfaction, marital status, and race had beta scores greater than or equal to .19 and were statistically significant at the desired level. This suggests that professional women who intended to retire later were older, receiving lower levels of income, single, more satisfied with their jobs, and non-white. Age was by far the most important single factor affecting a professional woman’s intention to remain in the labor force (beta = .44) followed by income (beta = .29).
Age of Retirement

Factors Influencing the Age at Which Professional Women Intend to Retire

- Education
- Race
- Job Satisfaction
- Marital Status
- Current Income
- Age
Table 11
Multiple Regression Analysis for Professional Women

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.52</td>
<td>.11</td>
<td>.44***</td>
</tr>
<tr>
<td>Current Income</td>
<td>-.05</td>
<td>.02</td>
<td>-.29**</td>
</tr>
<tr>
<td>Marital Status</td>
<td>1.02</td>
<td>.52</td>
<td>.20*</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>-.68</td>
<td>.35</td>
<td>-.20*</td>
</tr>
<tr>
<td>Race</td>
<td>-.99</td>
<td>.53</td>
<td>-.19*</td>
</tr>
<tr>
<td>Education</td>
<td>.19</td>
<td>.13</td>
<td>.18</td>
</tr>
<tr>
<td>Att./Retirement</td>
<td>.47</td>
<td>.39</td>
<td>.12</td>
</tr>
</tbody>
</table>

Adjusted R Square .37

N = 70

* Significant at the .10 level
** Significant at the .05 level
*** Significant at the .001 level
CHAPTER 5

DISCUSSION OF THE FINDINGS FROM THE ANALYSES
OF PROFESSIONAL MEN AND WOMEN

Provided below is a discussion of the variables that have been included in the discriminant analyses and multiple regressions. The discussion will proceed according to the five categories of factors identified in the review of literature (see Table 4). In each category of factors, the findings from the discriminant analyses are presented first followed by the results of the multiple regressions, where applicable.

Demographic Factors

Eight hypotheses were reviewed within the category of demographic effects. Hypothesis six (number of dependents) and hypothesis seven (tenure) were not included in either analysis due to a high number of missing values in the data set (see Table 7). The gender hypothesis (hypothesis one) was not tested since a separate analysis was done for men and women. Thus, five of the eight hypotheses related to demographic factors were tested.

Hypothesis two states that younger professionals will be more anxious to retire than older professionals. In both of the discriminant analyses (one for men and one for women), age was positively correlated with the discriminant
function. In the multiple regressions, age had the highest beta score and was statistically significant at the desired level in the sample of professional men and the sample of professional women. Thus, hypothesis two has been supported by the results of the discriminant analyses and multiple regressions of both samples of professional workers.

The findings support the work of previous scholars who found that, within the general population, as workers grow older they begin to prefer a later age of retirement (Blinder, Gordon, & Wise, 1980; Burkhauser, 1979; Ekerdt, Bosse, & Mogey, 1980; Prentis, 1980). In addition, the findings also support the results of previous studies of professional workers in which age was positively associated with the age at which a professional worker planned to retire (Richardson and Kilty, 1992).

The consistent findings suggest that as individuals near retirement age, something happens that makes them want to remain in the labor force. One possibility is financial need. Many individuals find that they are not prepared, financially, for retirement and are forced to seek out ways to secure additional income in their later years. Another possibility is a general lack of preparedness for the life changes that occur with retirement. Hypothesis eleven (self-identity gained from work) and hypothesis seventeen (retirement planning programs) could have provided some insight into this possibility. Unfortunately, a
measure was not available in the data set for either hypothesis.

Hypothesis three states that minority group professionals will intend to retire at a later age than white professionals. In the discriminant analysis of males, as well as the discriminant analysis of females, race had a negative relationship with the discriminant function. This was an indication that minority group professionals were more likely to belong to the earlier retirement group and white professionals were more likely to belong to the later retirement group. The negative relationship was also found in the multiple regression analysis of professional women. Race was not included in the multiple regression of professional men since it was not used in deriving the discriminant function. The results of the discriminant analyses, and the multiple regression of female professionals, do not support hypothesis three. In fact, the race variable was statistically significant in the opposite direction of what was hypothesized.

In studies of the general population, it has been suggested that minority group individuals must balance the effects of poor health, and the physical need to retire at an earlier age, with the continuing financial need to supplement their income in the retirement years (Gibson, 1991; Jackson & Gibson, 1985; Parsons, 1980a; Rones, 1978). Many minority group individuals are forced to work beyond
the traditional age of retirement despite the physical need to retire.

Studies of minority group professionals have focused on African Americans and their financial situation. These studies have found that African American professionals were less likely to receive retirement income from investments in stocks and bonds and were more likely to continue working in a post-retirement career (Kilty & Behling, 1986; Richardson & Kilty, 1989; 1992).

The results of the discriminant analyses and multiple regression seem to suggest that, consistent with some studies of the general population (Abbott, 1980; Gibson, 1991; Rones, 1978; Schwab, 1974), the effects of poor health might be forcing many minority group professionals to anticipate leaving the labor force at an earlier age. This could occur despite the financial need to remain in the labor force. In interpreting the results, one must consider that the respondents were between the ages of 55 and 63 and were responding to the questions in 1976 and 1986. Perhaps the minority group professionals who were a part of the samples had already experienced a lifetime of health-depleting employment and, as a result, were facing the possibility of leaving the labor force at an earlier age than they would have desired.

Hypothesis four states that professionals with a higher level of formal education will intend to retire at a later
age than professionals with a lower level of formal
education. A positive correlation between the level of
formal education
completed by a professional worker and the age at which he
or she intended to retire was identified in the discriminant
analysis of both samples. However, in the multiple
regressions, a statistically significant positive
correlation was found only in the sample of professional
men. That is, education had a strong positive correlation
with the age at which a male indicated he planned to retire
and was statistically significant at the desired level. In
the multiple regression of professional women, education did
not have a statistically significant effect on the
anticipated time of retirement. However, the beta was in
the direction hypothesized. The results of the discriminant
analyses of both samples and the multiple regression of
professional men support hypothesis four. The results of
the multiple regression of professional women, however,
leaves some doubt as to whether this relationship holds true
for this group of professionals.

A positive association between formal education and
retirement age has been found consistently by scholars who
have suggested that the opportunity cost of leaving the
labor force is greater for more highly educated workers
(Hayward & Grady, 1990; Ozawa & Wai-on Law, 1992; Parnes &
Sommers, 1994; Sum & Fogg, 1990). In addition, more highly
educated people are more likely to be in a better position to control their work situation and speed or delay their retirement decision (Streib & Schneider, 1971).

Among professional workers, the influence of education on the age of retirement has only been examined in one published study. Kilty and Behling (1985) found a weak, positive association between education and the age at which a professional worker intended to retire.

The discriminant analyses findings and the results of the multiple regression of professional men confirm the results of previous studies of the general population, as well as the work of Kilty and Behling (1985) that focused on professional workers. It appears that, at least for professional men, having a higher level of formal education may allow for greater control over the work situation and subsequent retirement decision. Completing a higher level of formal education is generally a prerequisite for entry into occupations that are often characterized by higher pay, better fringe benefits, and greater control over one’s day to day activities. These factors, among others, can be translated into a more certain career path and greater control surrounding the retirement decision due to the greater financial flexibility that is available, as well as the opportunity to gradually reduce one’s responsibilities while still remaining a member of the full-time labor force.
The non-significant relationship between the level of formal education completed and the age at which female professionals intended to retire may suggest that the effect of education on the retirement intentions of male professionals and female professionals is genuinely different due, in part, to cultural expectations regarding the role and status of women. Another possibility is that education was not as important to the sample of female professionals due to the time period in which the NLS was initiated (female wave originated in 1967). Perhaps the females in the sample had been forced to gain their professional standing based more on factors other than education due to the gender segregation that existed in higher education and the labor force during the 1950s and 1960s. As a greater number of individuals, both male and female, complete higher levels of formal education, it will be interesting to see if the relationship between education and the age at which a professional worker intends to retire becomes more similar for males and females.

Hypothesis five states that professionals who are married will intend to retire at a later age than professionals who are not married. In the discriminant analysis of males and the discriminant analysis of females, being married was positively associated with intending to retire at an earlier age. In the multiple regression of professional men, the beta score was near zero and was not
statistically significant at the desired level which was an indication that the relationship between marital status and the age at which a male professional intended to retire was extremely small or non-existent. Among professional women, a statistically significant positive correlation existed between being married and intending to retire at an earlier age. These findings do not support hypothesis five.

Previous studies of the relationship between marital status and the likelihood of leaving the labor force have produced different findings based on gender. For men, being married has been associated with remaining in the labor force (Hayward, Grady, Hardy, & Sommers, 1989; Hayward, Hardy, & Grady, 1989; Jaffe, 1972; Palmore, 1965; Quinn, 1977). For women the results have been less consistent, although in a more recent study, O’Rand and Henretta (1982) found that married women were more likely to retire at an earlier age than single women. In the only published study that examined the relationship among professional workers, those who were married were more likely to retire at a later age (Kilty & Behling, 1985).

The discriminant analyses and multiple regression findings seem to contradict the previous research involving males and professionals while supporting the research of O’Rand and Henretta involving females (1982). The low correlation coefficient and minimal beta score for males seems to suggest that marital status may not have much, if
any, effect on the age at which a male professional intends to retire. The finding that married females are more likely to retire at an earlier age than single females may suggest that retirement is a more realistic option for married females due to the influence and financial contribution that can come from a spouse.

The final hypothesis in the category of demographic factors states that professionals who are in good health will intend to retire at a later age than professionals who are in poor health. Although the health variable was operationalized in three different ways, each measure supported the hypothesis using the discriminant analyses of both samples. The multiple regression analysis of professional men included the health limitations measure. The beta score, though, was near zero which was an indication that the relationship between health limitations and the age at which a male professional intended to retire was extremely small or non-existent. A health measure was not included in the multiple regression of professional women since it was not used in deriving the discriminant function. Thus, hypothesis eight was supported by the results of the discriminant analyses but not by the results of the multiple regression of professional men.

The results of the discriminant analyses are consistent with the findings from the general literature which indicate that poor health is an important variable in the decision to
retire early (Burtless, 1987; Gordon & Blinder, 1980; Muller & Boaz, 1988; Sammartino, 1987; Sherman, 1985). Of greater importance, though, is the contribution that the results make to the body of literature focusing on professional workers. Only one published study of professional workers has examined the relationship between health and retirement intentions. Karp (1989) found that professionals in good health were less likely to be considering retirement.

The results of the discriminant analyses suggest that the health condition of a professional worker is an important variable in determining to which retirement group a professional worker is likely to belong. The small beta score from the multiple regression of men, though, suggests that when other factors are controlled, health has a much smaller effect on retirement intentions. Thus, it appears that health condition must be seen as one of many variables that can influence the age at which a professional worker intends to retire.

Attitude Factors

Three hypotheses were made within the category of attitude factors. Hypothesis eleven (self-identity gained from work) was not included in either analysis since a measure was not available for the concept. Thus, two of the three hypotheses were tested.

Hypothesis nine states that professionals who are more satisfied with their jobs will intend to retire at a later
age than professionals who are less satisfied with their jobs. In the discriminant analysis of professional men and professional women, job satisfaction had the second highest correlation coefficient. In the multiple regressions of professional men and professional women, job satisfaction had the third highest beta score in each sample and was statistically significant. Thus, the hypothesis was supported by both discriminant analyses and multiple regression findings from two different samples of professional workers.

The results of the discriminant analyses and multiple regressions make an important contribution to the retirement literature, within the general population, because very few studies have examined the relationship between job satisfaction and the decision to retire among individuals over the age of 60 (Ekerdt & DeViney, 1993; Mitchell, Levine, & Pozzebon, 1988; Rhodes, 1983). The few scholars that have examined the effect of job satisfaction on retirement intentions have found similar results, that dissatisfied workers retire at an earlier age. These findings suggest that policy changes, which encourage employers to create a more satisfying work environment, can

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result in older professionals remaining in the labor force longer.

Hypothesis ten states that professionals who have a more positive attitude toward retirement will intend to retire at an earlier age than professionals who have a more negative attitude toward retirement. The hypothesis was tested with the sample of females. The attitude toward retirement variable was operationalized with three different measures, each of which was supported by the discriminant analysis. Those who had positive attitudes toward retirement were more likely to fall within the group of respondents anticipating an earlier retirement. When considering the multiple regression analysis of professional women, only one of the measures was included. The measure was not found to be statistically significant. Thus, the results of the multiple regression did not support the hypothesis.

The discriminant analysis findings are consistent with the work of several scholars who found that, within the general population (as opposed to older, professional employees), individuals who have a more positive attitude toward retirement will intend on retiring at an earlier age than individuals who have a more negative attitude toward retirement (Erdner & Guy, 1990; Morrow, 1982; Parnes & Nestel, 1975; Pollman & Johnson, 1979).
The results of the discriminant analysis and multiple regression are the first empirical findings that have examined specifically older, professional employees with regard to the effects of attitude toward retirement on intentions to retire. Thus, the current findings, which provide mixed support for the hypothesis, establishes an initial baseline within the literature focused on older, professional workers.

Financial Factors

Three hypotheses were made within the category of financial factors. Each hypothesis was tested in at least one of the two samples. The current income hypothesis (hypothesis twelve) was not tested in the analysis of professional men due to missing values in the data set. The Social Security hypothesis (hypothesis thirteen) was not tested in the analysis of professional women since every respondent was eligible to receive Social Security benefits. The private pension hypothesis (hypothesis fourteen) was not tested in the analysis of professional men since every respondent was eligible to receive private pension benefits.

Hypothesis twelve states that professionals with higher levels of income will intend to retire at an earlier age than professionals with lower levels of income. The discriminant analysis showed that the level of a female professional's income was negatively correlated with the age at which she intends to retire. The negative relationship
was also supported in the multiple regression of professional women. Thus, the hypothesis was supported with the sample of females in both the discriminant analysis and multiple regression.

An examination of the literature showed that the relationship between amount of current income and an individual's retirement intentions, in the general population, is unclear. While several researchers have found that higher current income is positively associated with later retirement\(^5\), others have found that higher current income is negatively associated with later retirement\(^6\). The results of the discriminant analysis and multiple regression support the latter conclusion.

The current study hypothesized a negative relationship when considering older professionals. However, at least one study has found the opposite to be true. Richardson and Kilty (1992) found a strong positive relationship between current income and the age at which their respondents indicated people should retire. The results of the discriminant analysis and multiple regression analysis contradict their findings. A possible explanation for the different findings is that the sample used by Richardson and


Kilty (1992) included males, as well as females, while the sample used in the discriminant analysis and multiple regression analysis consisted entirely of females. Perhaps the impact of current income on retirement intentions is different for male and female professional workers. The presence of gender discrimination, especially in higher paying, more powerful and prestigious jobs, may translate into female professionals having a more favorable view of earlier retirement. A female professional may choose to retire earlier if she perceives that her level of income and responsibility will not increase due to a "glass ceiling" at her place of employment.

Hypothesis thirteen states that professionals who are eligible to receive Social Security benefits will intend to retire at an earlier age than professionals who are not eligible to receive Social Security benefits. The hypothesis was tested with the sample of males.

In the discriminant analysis, those who were eligible for Social Security were more likely to be in the group of persons who intended to retire early. In the multiple regression, however, eligibility for Social Security benefits was not statistically significant. Thus, the hypothesis appeared to be supported by the results of the discriminant analysis and not supported by the results of the multiple regression.
The lack of support for the hypothesis is not in agreement with much of the literature on this subject. On the other hand, there are some scholars who have found that eligibility for Social Security plays a relatively minor role in the retirement decision (Burtless, 1986; Reimers, 1977; Sherman, 1985; Slade, 1987). The influence of Social Security benefits on the age at which professional workers intend to retire has not been reported in the literature.

The results of the discriminant analysis lend support to the findings that suggest eligibility for Social Security encourages older workers to leave the labor force at an age earlier than necessary. These findings suggest that raising the age at which Social Security benefits are available might help to keep a greater number of older workers in the labor force. However, the lack of support for the hypothesis with the results of the multiple regression suggests that when other factors are considered simultaneously, the age at which Social Security benefits are available has little influence on intentions to retire. Despite the mixed results, the influence of eligibility for Social Security benefits on a professional male's retirement intentions is the first empirical finding of this relationship and establishes a baseline within the body of empirical work.

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Hypothesis fourteen states that professionals who are eligible to receive private pension benefits will intend to retire at an earlier age than professionals who are not eligible to receive private pension benefits. The hypothesis was tested with the sample of females. In the discriminant analysis, those who were eligible to receive private pension benefits were more likely to be in the group of persons who intended to retire early. Eligibility for private pension benefits was not included in the multiple regression of professional women since it was not used in deriving the discriminant function. Thus, hypothesis fourteen was mildly supported.

When examining the research literature that investigated the relationship between eligibility for a private pension and an individual’s retirement intentions, the findings reported are mixed. While some scholars have found that workers who are eligible for private pension benefits are more likely to retire (Gordon & Blinder, 1980; Morgan, 1980; Quinn, 1977), others have found that workers who are eligible for private pension benefits are more likely to remain in the labor force (Kotlikoff, 1979; Reimers, 1977). The results of the discriminant analysis lend support to the findings from studies of the general population that suggest that the opportunity to receive a retirement income beyond Social Security seems to offer an additional incentive to leave the labor force.
When considering the influence of private pension benefits on the age at which a professional worker intends to retire, no existing research was found. Thus, the positive association identified between eligibility for a private pension and an earlier age of retirement is the first empirical finding of this relationship among professional workers.

Organizational Factors

Three hypotheses were made within the category of organizational factors. Hypothesis fifteen (philosophy of management toward older workers) was not included in either analysis since a measure was not available for the concept. The industry hypothesis (hypothesis sixteen) was not included in the analysis of professional men due to missing values in the data set. Hypothesis seventeen (retirement planning programs) was not included in either analysis since a measure was not available for the concept. Thus, one organizational factor was tested in the analysis of professional women.

Hypothesis sixteen states that professionals in downsizing industries will intend to retire at an earlier age than professionals in more economically vibrant industries. The hypothesis was tested with the sample of females. In the discriminant analysis, those who were employed in downsizing industries were more likely to be in the group of persons who intended to retire later. Industry was not
included in the multiple regression of professional women since it was not used in deriving the discriminant function. Thus, hypothesis sixteen was not supported.

The lack of influence of this variable to help discriminate between those intending to retire earlier or later is an important finding since very few studies have reported the effects of industry on an individual's retirement intentions. In one of only two published multivariate studies, Burtless (1987) found that men who worked in manufacturing, construction, transportation, and mining were more likely to retire earlier than men in professional industries. The present study did not support this.

External Factors

A measure was not available to test the impact of inflation and changes in the Social Security program (hypothesis eighteen) on the retirement intentions of professional workers. Thus, the hypothesis within the external factors category was not tested with either sample.

Summary of the Discussion

The hypotheses that were tested have been presented according to the five categories of factors identified in the literature review. A discussion of the manner in which each hypothesis was tested, along with the outcome of the statistical procedures, has been provided (Table 12). The results of the study have been compared to the previous
Table 12

Hypotheses Tested by Discriminant Analysis and Multiple Regression of Professional Men and Women

<table>
<thead>
<tr>
<th>Variable/Hypothesis</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D.A.</td>
<td>M.R.</td>
</tr>
<tr>
<td><strong>Demographic Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (H1)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Age (H2)</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Race (H3)</td>
<td>N</td>
<td>-</td>
</tr>
<tr>
<td>Education (H4)</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Marital Status (H5)</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Number of Dependents (H6)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tenure (H7)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Health (H8)</td>
<td>S</td>
<td>N</td>
</tr>
<tr>
<td><strong>Attitude Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction (H9)</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Attitude Toward Retirement (H10)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Financial Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Income (H12)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Social Security (H13)</td>
<td>S</td>
<td>N</td>
</tr>
<tr>
<td>Private Pension (H14)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Organizational Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry (H16)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* = gender was controlled by conducting separate analyses of professional men and professional women

S = the hypothesis was supported

N = the hypothesis was not supported

- = the hypothesis was not tested with the statistical technique
literature in order to place the findings within the existing body of empirical work. Since separate analyses were done for the samples of professional men and professional women, a comparison of the findings from the hypotheses common to both is provided below.

Comparison of Professional Men and Professional Women

The comparison of the findings from the samples of professional men and professional women will be limited to the six variables that were common to both. The age, race, education, marital status, health, and job satisfaction hypotheses were tested using both samples of professional workers.

Age and job satisfaction were found to have significant effects on intentions to retire for both male and female professionals. When comparing the discriminant analyses, age had a strong, positive correlation with the discriminant function and job satisfaction had a strong, negative correlation with the discriminant function in the professional men and professional women samples. In the multiple regression analyses, age had the highest beta score for both men and women and was positively related to the age at which a professional worker intended to retire in both samples. Job satisfaction had a strong beta score for both men and women and was negatively related to the age at which a professional worker intended to retire in both samples, as well. These findings indicate that professional workers,
both male and female, who intend to retire later are older and more satisfied with their jobs.

Even though it was found that more highly educated professionals intend to retire at a later age, education appeared to have a different level of influence on male and female professionals. When considering professional men, education had a moderate, positive correlation with the discriminant function and a strong, positive beta score in the regression analysis. Among the professional women, education had a moderate, positive correlation with the discriminant function and a moderate, positive beta score in the regression analysis. The findings suggest that education was mildly helpful in determining to which retirement group the professional workers would belong. When controlling for other variables, though, education became a more important factor in determining the retirement intentions of professional men than of professional women. A possible explanation for the difference is the presence of gender discrimination. While males were able to convert their formal education into well-paying, prestigious jobs, female professionals may have been forced to gain their professional standing based more on factors other than education. As a result, the influence of education on a female professional's intentions to retire would be less than it would on a male professional's intentions to retire.
Like education, marital status appeared to have a different level of influence on the two samples even though it was found, in both samples, that married professionals intend to retire at an earlier age. Among professional men, marital status had a weak, positive correlation with the discriminant function and a negligible beta score in the regression analysis. When considering professional women, marital status had a moderate, positive correlation with the discriminant function and a moderate, positive beta score in the regression analysis. The findings suggest that marital status was not an especially important variable in determining retirement group membership. However, when controlling for other variables, marital status became a more important factor in determining the retirement intentions of professional women than of professional men. In a positive light, retirement may have been a more viable option for married females than single females due to the financial contribution of their spouse. On the other hand, female professionals may have had to adjust their retirement intentions to coincide with those of their husband due to the societal expectation that the husband's career was to be the primary one in a family.

The race hypothesis was tested using discriminant analysis with the sample of professional men and discriminant analysis and multiple regression with the sample of professional women. When considering professional
men, race had a weak, negative correlation with the discriminant function which suggests that it was not especially helpful in determining to which retirement group the professional men would belong. For professional women, though, race had a strong, negative correlation with the discriminant function which indicates that it was a helpful variable in determining retirement group membership. When considering the multiple regression analysis for professional women, the race variable had a moderate effect in the same negative direction indicating that it was a mildly important variable in determining the retirement intentions of professional females when controlling for other factors. While the findings from both samples indicate that minority group professionals were more likely to intend to retire at an earlier age than white professionals, the relationship appeared to be more pronounced for female professionals. A possible explanation for this finding is that the double minority status that non-white females encountered in the labor force may have been converted into anticipating an earlier age of retirement due to discrimination, physically difficult or monotonous jobs, or simply the desire to retire.

The health hypothesis was tested using discriminant analysis and multiple regression with the sample of professional men and discriminant analysis with the sample of professional women. In both samples, the moderate,
positive correlation with the discriminant function indicates that health was somewhat effective in determining retirement group membership. When controlling for other factors, though, health had a negligible impact on the retirement intentions of professional men. Thus, the discriminant analysis findings indicate that professionals, both male and female, who considered themselves to be in better health were more likely to retire at a later age. The findings from the regression analysis of professional men, though, indicate that health was one of many factors that could influence the retirement intentions of a male professional. Since the regression analysis for females did not include a health variable, the impact of health on the retirement intentions of female professionals, when controlling for other factors, cannot be established.

In sum, the differences in the influence of education, marital status, and race on the retirement intentions of male and female professional workers may represent gender differences. Different societal norms, based on gender, or outright discrimination against female professionals may have effected the influence of these variables on the work histories and retirement intentions of the members of both samples. The differences may also reflect the different cohorts and periods that were represented in the two samples. This possibility will be discussed further in the following chapter.
CHAPTER 6

IMPLICATIONS FOR THEORY AND PRACTICE

The purpose of this study has been to examine the factors believed to influence the retirement intentions of professional workers. A thorough literature review found only seven empirical studies that focused on professional workers. Of the seven, only two have dealt directly with the retirement intentions of professional workers. The results of this study enhance our understanding of the factors influencing the age at which professional workers intend to retire.

Eighteen hypotheses have been made based on the review of literature. Measures were available to test fourteen of the hypotheses. Of the fourteen hypotheses, seven have been tested with the sample of professional men and ten have been tested with the sample of professional women.

Theoretical Implications

The underlying thesis of the study has been that there are differences between professionals who retire at an earlier age and professionals who retire at a later age. The results of the study support the thesis. The implications of the results for theory and practice are presented below.
Demographic Factors

Based on previous empirical research, it was expected that demographic variables would play an important part in determining the age at which professional workers intend to retire. For the most part, this expectation was correct. Five of the eight hypotheses dealing with demographic factors were tested. Gender was controlled and the number of dependents and tenure hypotheses were not tested due to a high number of missing values in the data set.

Age was positively correlated with intending to retire later rather than earlier for both male and female professionals. This strongly supports the hypothesized relationship and indicates that as individuals near retirement age, something happens that makes them want to remain in the labor force. Professionals may find that they are not financially prepared for retirement or for the life changes that occur with retirement. As a result, they may delay their departure from the labor force.

The race hypothesis stated that minority group professionals will intend to retire at a later age than white professionals. The rationale was that minority group professionals may have to remain in the labor force longer in order to supplement their retirement incomes due to previous discrimination in the labor force. The hypothesis was not supported by either sample. In fact, the findings suggest the reverse, that the minority group professionals
intended to retire at an earlier age than white professionals. Unfortunately, the data do not provide explanations for the findings. Further research could clarify this.

It is also important to note that race seemed to be a more important variable in determining retirement group membership among female professionals than male professionals. Although this finding is difficult to interpret, it may suggest that the double minority status that non-white females have encountered in the labor force was being translated into anticipating an earlier age of retirement due to discrimination, physically difficult or monotonous jobs, or simply the desire to retire.

The hypothesis that professional workers who are married will intend to retire at a later age than professional workers who are not married was not supported. Among professional men, marital status was found to be mildly important, at best, in influencing retirement intentions. For professional women, however, marital status played a more important role, albeit in the opposite direction of what was hypothesized. These findings may suggest that retirement is a more realistic option for married females due to the influence and financial contribution that can come from a spouse. On the other hand, the findings may suggest that the difference in the impact of marital status on the retirement intentions of
male and female professionals is simply a reflection of the different age groups and time periods that were represented in the two samples.

It was hypothesized that professionals with a higher level of formal education will intend to retire at a later age than professionals with a lower level of formal education. The hypothesis was supported with the results of three of the four statistical procedures. The findings suggest that education was only mildly helpful in determining to which retirement group a professional worker would belong. When controlling for other factors in the regression analysis, it became a more important variable in determining the retirement intentions of professional men than of professional women. Perhaps the females in the sample had been forced to gain their professional standing based more on factors other than education due to the gender segregation that existed in higher education and the labor force during the 1950s and 1960s. Therefore, the impact of formal education on the retirement intentions of female professionals would be small. The professional males, on the other hand, may have relied heavily on their formal education to secure their occupational status and would want to continue to capitalize on their investment in education.

The hypothesis that professionals who are in good health will intend to retire at a later age than professionals who are in poor health was mildly supported.
While the health condition of a professional worker was helpful in determining the retirement group to which he or she would belong, when controlling for other factors, health was not an influential variable. These findings suggest that the influence of a professional worker's health condition on his or her retirement intentions must be considered in concert with other factors. While an individual's health condition is an important variable in the retirement decision, it should not be isolated as the sole precipitating factor leading to retirement. Other variables must also be recognized as being a part of the equation.

It would appear that, as a group, demographic factors should continue to be considered when addressing the retirement intentions of professional workers. Of particular importance is the age of the professional worker. In addition, there appears to be the possibility of gender differences in the findings which suggest that gender may also be an important demographic variable since it appears to interact with the influence of other variables.

**Attitude Factors**

Three attitude variables were expected to influence the age at which professional workers intend to retire. Two of the three hypotheses presented were tested. The self-identity gained from work hypothesis was not tested because a measure was not available for the concept.
As hypothesized, job satisfaction was positively correlated with intending to retire later rather than earlier for both male and female professionals. This strongly supports the hypothesis and indicates that more satisfied workers are more likely to retire at a later age than dissatisfied workers.

The hypothesis that professionals who have a more positive attitude toward retirement will intend to retire at an earlier age than professionals who have a more negative attitude toward retirement was tested with the sample of females and yielded mixed results. Attitude toward retirement was helpful in determining to which retirement group a female professional would belong. However, when controlling for other factors in the regression analysis, a female professional's attitude toward retirement was not an influential variable. The results suggest that while a female professional's attitude toward retirement is a part of her decision to leave the labor force, it must be seen as one of several factors that influence her retirement intentions.

As a group, the attitude factors appear to be an important category for understanding the retirement intentions of professional workers. The job satisfaction of a professional worker appears to be an especially influential variable in the retirement decision.
Financial Factors

Three financial factors were expected to influence the age at which professional workers intend to retire. Each of the hypotheses was tested using one of the samples of professional workers.

It was hypothesized that professionals with higher levels of income will intend to retire at an earlier age than professionals with lower levels of income. The hypothesis was tested, and supported, using the sample of female professionals. The results strongly suggest that female professionals with a higher level of income are more likely to anticipate leaving the labor force at an earlier age than those who have lower levels of income.

The sample of male professionals was used to test the hypothesis that professionals who are eligible to receive Social Security benefits will intend to retire at an earlier age than professionals who are not eligible to receive Social Security benefits. The mixed results indicate that while eligibility for Social Security is an important variable in determining retirement group membership for professional men, it is less influential when other factors are controlled in a regression analysis. This suggests that considering eligibility for Social Security as the chief determinant in a male professional's retirement intentions is too simplistic. Instead, eligibility for Social Security
is one of several factors that may influence the retirement intentions of male professional workers.

The hypothesis that professionals who are eligible to receive private pension benefits will intend to retire at an earlier age than professionals who are not eligible to receive private pension benefits was tested using the sample of female professionals. Eligibility for private pension benefits was found to be mildly helpful, at best, in determining retirement group membership for female professionals. The weak support of the hypothesis may be attributed to the sample of professionals that was used to test it. Perhaps, the influence of private pension benefits on the retirement intentions of female professionals was small because many either did not expect to receive benefits or expected to receive a relatively low level of benefits due to gender discrimination in the labor force.

Although the three financial category factors were only tested with one sample each, the results indicate that financial variables can, and do, influence the retirement intentions of professional workers. It appears that financial factors should continue to be considered when addressing the retirement intentions of professional workers.

Organizational Factors

Only one of the organizational factors hypotheses was tested. It was hypothesized that professionals in down-
sizing industries will intend to retire at an earlier age than professionals in more economically vibrant industries. The hypothesis, which was tested with the sample of females, was not supported. Industry was a relatively unimportant factor in determining retirement group membership among female professionals. Despite the small influence of industry on the retirement intentions of female professional workers, it would seem that industry should continue to be included when addressing the retirement intentions of professional workers because of the changing nature of the business sector. Perhaps, industry was not an important variable in determining the retirement intentions of female professionals because when they responded to the question, the economic climate was more favorable than it is today. As businesses increasingly attempt to cut costs and trim their labor force, the influence of the industry in which one is employed on the retirement intentions of professional workers may increase.

**Implications for Practice**

The decline in the labor force participation rates of older workers and the economic burden it places on social institutions, such as Social Security and Medicare, and the younger cohorts of workers who remain in the labor force strongly suggests the need to uncover ways of slowing, and perhaps even reversing, the trend toward earlier retirement. The results of this study suggest several areas in which
employers and policy makers can implement changes that could reduce the number of professional workers who leave the labor force early.

First, professionals who are farther away, chronologically, from retirement seem to have a more enthusiastic view of retirement. Given an option to retire early, they would be more inclined to accept it. In contrast, as professionals near the traditional age of retirement, and the financial and social realities of retirement are upon them, many find that they are not ready to retire. This seems to suggest the need for an increase in the number and scope of retirement planning programs. Not only would they help in the transition from work to retirement for those who are ready to retire, retirement planning programs could also provide a more realistic view of retirement for younger workers. Becoming aware of what retirement life would be like for them, personally, might alter the enthusiastic attitude toward retirement that characterizes many younger professionals.

Second, professionals who are more satisfied with their jobs are more likely to retire at a later age. An older individual can use retirement as a way of getting out of an unpleasant job while still receiving some measure of income through Social Security and private pension benefits. Employers can respond to this by creating environments that
foster more satisfying jobs. Ways of encouraging employers to implement job design changes of this type are needed.

Finally, policy makers in the private and public sector must consider that while financial variables such as current income, eligibility for Social Security, and eligibility for private pension benefits seem to increase the opportunity to retire at an earlier age, other variables, such as health condition and educational attainment, seem to encourage professional workers to retire at a later age. While steps have been taken to increase the age at which private and public pension benefits are available, if these steps are taken without considering the influence of other variables on the retirement intentions of professional workers, then the results of the changes in the pension programs are likely to be less than desired. Policy makers must also recognize that, in concert with other variables, more highly educated workers and those in better health are more inclined to retire at a later age. After recognizing the importance of education and health on the retirement intentions of professional workers, efforts must then be made to create a more educated work force via programs such as continuing education and tuition reimbursements. In addition, wellness programs, non-smoking environments, and health clubs at the site of the employer are but a few of the steps that can be taken to encourage healthier lifestyles for employees and, subsequently, increase the
likelihood of a later age of retirement for a professional worker.

While attempting to alter the retirement intentions of professional workers, policy makers must also be aware of the influence of gender, race, and marital status. Although policies cannot be established based purely on gender, race, or marital status, the influence of these variables in the retirement equation is very important and policy makers must be prepared to respond to variations in these factors without discriminating against a particular group of workers.

Suggestions for Future Research

The purpose of this research has been to examine the factors believed to influence the age at which professional workers intend to retire. Several contributions have been made to the small, but increasingly important, body of research on this occupational group. Despite the positive contributions that have been made to the body of research, the results should be interpreted with an appropriate degree of caution for four reasons.

First, some of the variables that were identified in the review of literature as being important factors in an individual's decision to retire were not included in the analysis. Four of the variables were not used because a measure was not available in the data set. Two of the variables were not included due to an excessive number of
missing values in the data set. One variable, gender, was not included since separate analyses were done for males and females.

Second, in many cases, only one question was used to measure the concept. It is preferable to ask several questions about the concept being studied in order to test the reliability of the respondent's answers (Babbie, 1986). Unfortunately, only one question was available for twelve of the fourteen concepts.

Third, the use of secondary data can be problematic. Although secondary analysis is less expensive and more time-efficient than gathering primary data, concerns about validity and specification error do exist (Babbie, 1986). Secondary data may be fairly similar to the information needed by a subsequent user, but it may not be addressing exactly the same concept. The subsequent user must make a determination regarding the validity of the measure to his or her research purposes (Babbie, 1986).

Finally, separate analyses were done for professional men and professional women in an effort to avoid the possibility of a period effect. The professional men responded to the questions in 1976, while the professional women responded to the questions in 1986. The ten year difference was necessary in order to secure individuals from both sexes who were between the ages of 55 and 63. Despite the efforts to avoid a potential period effect, the
possibility that one exists still remains. In addition, it is possible that a cohort effect might be present since the men were several years older than the women.

In light of these limitations, future research should include the eleven hypotheses that were tested in this study, plus the seven hypotheses that were not tested. In addition, multiple questions should be used to measure each concept in order to strengthen the reliability of the findings. Finally, future studies should use samples that consist of males and females who are similar in age in order to avoid the possibility of a period effect or a cohort effect. The use of primary data would be helpful in meeting these recommendations.
APPENDIX

OPERATIONALIZATION OF VARIABLES
The following questions were used to operationalize the independent and dependent variables. The questions were taken from the 1976 mature men and 1986 mature women files of the National Longitudinal Surveys of Labor Market Experience.

**Occupation**

What kind of work are you doing?

- a 3-digit occupational code from the 1960 U.S. Bureau of the Census has been used with the following professions represented:

accountants and auditors, architects, artists and art teachers, authors, chemists, chiropractors, college presidents and deans, professors, dentists, engineers, lawyers and judges, nurses, pharmacists, biologists, mathematicians, geologists, physicians and surgeons, psychologists, and veterinarians, clergymen, dancers and dance teachers, designers, dieticians and nutritionists, draftsmen, editors and reporters, foresters and conservationists, librarians, musicians and music teachers, photographers, pilots and navigators, radio operators, publicity writers, recreation and group workers, religious workers, social and welfare workers, technicians, elementary school teachers, secondary school teachers.

**Age of Retirement**

At what age do you expect to stop working at a regular job?
- actual age

**Individual Factors**

Gender - male or female

Age - actual age

Race - white
- black
- other

Education - What is the highest level of education you have completed?
- response options ranged from 7 to 13 years
Marital Status - married, spouse present
married, spouse absent
widowed
divorced
separated
never married

Number of Dependents - Excluding your spouse, how many dependents do you have? - number

Tenure - How long have you been at your current job? - number of years

Health - Does your health or physical condition limit the amount of work you can do (other than housework)? - yes or no

In the last three years, has your health condition become better, worse, or remained about the same? - worse
same
better

Would you rate your health, compared with others of the same sex and age, as excellent, good, fair, or poor? - excellent
good
fair
poor

Attitude Factors

Job Satisfaction - How do you feel about the job you have now?

Do you -
-like it very much?
-like it fairly well?
-dislike it somewhat?
-dislike it very much?

Attitude Toward Retirement - Retirement is a pleasant time of life.

People who don’t retire when they can afford to are foolish.

Most people think more of someone who works than they do of someone who doesn’t.

Response categories were: strongly agree, agree, disagree, strongly disagree
Financial Factors

Current Income - Altogether, how much do you usually earn at this job before deductions? - monthly amount

Social Security - When you reach retirement age will you be eligible on the basis of your own work experience to receive Social Security or Railroad Retirement Benefits? - yes no

Private Pension - Does your employer or union have a pension plan other than Social Security or Railroad Retirement Benefits? - yes no

Organizational Factors

In what kind of industry do you work?

- a 3-digit industry code from the 1960 U.S. Bureau of the Census has been used
REFERENCES


