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Assessing Faculty Interest in Early Retirement from a Quality of Life Perspective
by
Nancy L. Conroy

**A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of Master of Arts**

Department of Psychology

**Carleton University
Ottawa, Ontario
April, 1996
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submitted by Nancy L. Conroy

**in partial fulfillment of the requirements for
the degree of Master of Arts**

Thesis Supervisor

Chair, Department of Psychology

**Carleton University
April, 1996**

Abstract

The widespread use of early retirement incentive programs to reduce the numbers of faculty at universities throughout North America has resulted in calls for greater understanding of who is most apt to respond positively to such programs. The Quality of Life (QOL) Inventory, a new instrument for measuring satisfaction with quality of life, was designed to identify which faculty would be most likely to accept an early retirement incentive. One hundred and fifty-five faculty at Carleton University participated in the survey. The sample included 113 men and 42 women, with a median age of 51. The study found that individuals who anticipate gains in satisfaction with quality of life by accepting an early retirement incentive are more likely to express an interest in early retirement than those who anticipate losses.

Acknowledgements

I would like to express my thanks and gratitude to Dr. K. Edward Renner, my Thesis Advisor, for enthusiastically welcoming me to this project and for his support and patience in guiding me throughout this study. Thanks also go to Lorraine Mwenifembu for her assistance in the final stages of the study.

I would also like to express appreciation to the members of my Thesis Defense Committee: Dr. Bill Jones (Chair), Dr. Elinor Burwell, Dr. Roger Wells, and Dr. Susan Phillips.

Lastly, I would like to thank my husband, Peter Conroy, for his thoughtful input and his unwavering support.

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Assessing Faculty Interest in Early Retirement from a Quality of Life Perspective

Universities in North America are facing serious challenges as they adapt to the economic and social realities of the 1990's and they are under pressure to show leadership in adapting to the new and changing demands of society. Boyer (1990), in the United States, has spoken of the need for "a new vision of scholarship . . . dedicated not only to the renewal of the academy but, ultimately, to the renewal of society itself" (p. 81). Cross (1991), in a speech to the American Association for Higher Education (AAHE), suggested that "the problems we face now call for a new lens, new ways of looking at issues, a paradigm shift" (p. 9). This need for renewal is driven to some extent by financial pressures but it is also driven by the significant changes society itself is undergoing. For example, world-wide economic conditions have led to increasing demands on universities to prove they are relevant and responsive to the needs of students and taxpayers (Tucker, 1995; Sibley, 1993).

From an economic perspective, universities have experienced and will continue to experience serious cuts to budgets as governments make efforts to reduce deficits. It is becoming increasingly difficult for universities to meet reduction targets without reducing the number of faculty because salaries make up a large proportion of university budgets (Cruckshank, 1982). The tenure system and the salary provisions of most collective agreements (Monahan & Greene, 1987) have meant that universities have been faced with either steady or escalating salary costs at a time when budgets are generally shrinking (Cameron, 1991; George, 1979; Hacker, 1992). The problem has been further

exacerbated by the fact that a high proportion of faculty now fall within the upper end of the age and salary distribution (Cameron, 1991, George, 1979; Renner, 1988). Leslie (1980) suggested that this trend was, in fact, the "most serious problem facing Canadian higher education" (p. 49). As of 1990, in the United States, more than half the faculty were over 45 years old, and one quarter were over 55 (Astin, Korn & Dey, 1991). The median age of Canadian faculty as of 1988 was 48 (Davidson, 1991), compared to a median age of 38 in 1971-72 (Symons & Page, 1984). In a more recent study by Renner and Mwenifembu (1995), they noted that the median age of the faculty from nine Canadian institutions was 50. Increases in the median age occurred because of the dramatic decline in the growth rate of faculty positions at Canadian universities; this rate shifted from 12% in the 1970s to 1.2% in the 1980s (Davidson, 1991).

Universities have chosen a variety of strategies to manage the need for change. Some have focused on raising revenues in order to avoid cuts to salary budgets or have used across-the-board cuts to achieve savings (Hardy, 1984). Some universities have raised revenues by increasing tuition fees (Drolet, 1994; Martinson, 1994). Those who have tackled the salary issue have tended to do so by not hiring replacements, by limiting hiring and by hiring sessional lecturers instead of full-time staff (Hardy, 1984; Hacker, 1992). Increasingly, universities have had to consider strategies that include reducing the number of faculty (George, 1979) in order to achieve greater financial and organizational flexibility. One tool they have used is voluntary early retirement incentive programs to encourage senior faculty to retire early (Chronister & Kepple, 1987). Usually these programs offer faculty various forms of financial incentives to retire prior to the normal or

mandatory age of retirement. These programs are generally introduced to ease the pressure on budgets. When they are successful, they not only result in financial savings, but also provide institutions with the opportunity to recruit new faculty at lower salary levels (Whitbourne, Krauss, Smith, & Sperbeck, 1981) and, in some cases, to reorient programs. They also provide those faculty who would like to leave early with an opportunity to do so.

Early retirement incentive programs have received mixed reviews. Although they can be effective in the achievement of savings through reductions in the number of faculty, it is difficult to predict what the take-up rate will be, which faculty will leave and, as a result, which programs or departments will be affected and in what way. Reducing the number of faculty also leads to secondary problems such as increased class sizes, increased workloads and reductions in course offerings. In some cases, universities offering such programs have found that they lose some of the faculty they would like to retain, and retain some that they would prefer to have leave (Kellams & Chronister, 1988). The loss of staff is often disproportionate across faculties, resulting in a need for extensive rebuilding of those faculties most affected. One of the reasons for the difficulty in predicting who will leave when early retirement incentive programs are offered in universities, and therefore, what the impact of the program will be, is that not much research has been done on the factors that motivate faculty to opt for voluntary early retirement.

There has, however, been considerable research on the retirement decision-making process, in general, and on what motivates individuals to retire. Much of this research is

based on the implicit premise that individuals will choose to retire, whether early or otherwise, if they believe that their overall well being or quality of life will be enhanced by doing so. Antonevsky, Sagy, Adler, and Visel (1990), for example, suggested that individuals would consider their gains and losses in arriving at the decision. In a similar vein, Daniels and Daniels (1991) talked about the pushes and pulls involved as individuals consider what their ultimate decision will be. A more direct conclusion that has emerged from the literature is that individuals, including faculty, will make this decision on the basis of a unique combination of a wide array of variables involving both work and non-work domains (Feldman, 1994; Kellams & Chronister, 1988; Monahan & Greene, 1987).

The purpose of this study was twofold. The first purpose of the study was to achieve a better understanding of faculty interest in early retirement by using the concept of satisfaction with quality of life as a framework for doing so. The second purpose was to develop, test and evaluate a new instrument designed to produce a single global measure that would reflect the individual faculty member's overall conclusion about whether or not taking early retirement would enhance his or her satisfaction with quality of life. In doing so, it was hoped that this new instrument would prove to be a practical tool that could both assist individuals in contemplating early retirement and assist institutions in managing early retirement incentive programs.

The Faculty

As of the early 1990s, there were approximately 475,000 full-time faculty on staff at American universities (The Carnegie Foundation for the Advancement of Teaching, 1990) and about 35,000 full-time faculty employed in Canada (Cameron, 1991).

Although not much research has been done to shed light on the specific factors motivating faculty to opt for early retirement (Daniels & Daniels, 1991; Kellams & Chronister, 1988), a good deal is known about North American faculty in general and their attitudes toward work and retirement. Several faculty surveys have been carried out. Two American studies and three Canadian studies, in particular, have provided useful data on these attitudes.

The Carnegie Foundation for the Advancement of Teaching has carried out regular surveys of faculty in the United States. In their 1989 survey, they found that 44% of the faculty surveyed felt that their jobs were a source of personal strain. By 1995, this had dropped to 33% (The Chronicle of Higher Education, 1995). At about the same time as the 1989 Carnegie survey was carried out, another survey of faculty was conducted by Astin et al. (1991) for the Higher Education Research Institute (HERI) in the United States. When faculty were asked to rate their overall job satisfaction, 69% said they were satisfied or very satisfied whereas 31% were not. Time pressures and lack of a personal life were cited by faculty as the major sources of personal strain. In a 1987 Canadian survey, Timmons (1989) found that only 63% were satisfied or very satisfied with their career progress.

In the 1989 Carnegie survey, when faculty were asked whether they would consider permanent departure from their institution, 34% indicated that they had seriously considered this. Seventeen percent wished they had entered another profession. The Astin et al. (1991) survey supported this finding, with roughly 20% of the sample indicating they were not sure they would, would probably not or would definitely not

choose to be college professors again. Similar results were obtained by Timmons (1989), with 20% of her Canadian sample indicating they were not satisfied with their career choice.

The 1989 Carnegie survey specifically asked faculty whether or not they would accept an early retirement option if it were made available to them and 44% agreed that they would. This group was broken down on the basis of a number of different variables such as age and gender. Although most voluntary early retirement incentive programs are only offered to those over some minimum age, it was reported that 40% of the under-40 group who participated in this survey, indicated they would accept early retirement, if it were made available to them. The Carnegie Foundation for the Advancement of Teaching (1990) has suggested that this interest in early retirement might reflect a "growing malaise among today's faculty" (p. 34). In a similar Canadian survey, 46% said they would definitely or probably choose to retire early if offered an adequate financial incentive (Lennards, 1987). Renner (1991) also found, based on a survey of the faculty at Dalhousie University, that 40% were interested in accepting a career alternative.

The findings of these relatively recent studies suggest that, although there were many faculty who were satisfied with their chosen profession, about three out of ten faculty were not satisfied with their work lives. Many faculty reported that their profession was a source of considerable personal strain, and had a negative impact on the non-work aspects of their lives (Carnegie Foundation for the Advancement of Teaching, 1989). One in five even indicated that they thought they had chosen the wrong profession. Moreover, roughly four in ten indicated some interest in opting for early

retirement with an incentive. The overall impression created by the results of these surveys is that some faculty at least, in both Canada and the United States, are not fully satisfied with their work lives, are experiencing some work-related stress, and would potentially be interested in opting for early retirement.

Retirement and Early Retirement

There has been considerable research on retirement and early retirement and some of this research has focused specifically on faculty. The findings of relevance to this study can be divided into four categories. These involved the timing of retirement, the retirement decision-making process, the variables influencing the retirement decision, and the relationship between attitude to work and attitude to retirement.

Timing of Retirement

Although individuals in North America are retiring earlier (Schnore, 1985; Spacapan & Oskamp, 1989; Schellenberg, 1994), this trend does not yet include faculty (Daniels & Daniels, 1991). In fact, the current shift in mandatory retirement for faculty from 65 to 70 in the United States is expected to result in the maintenance of the current upward trend in the age at which faculty retire (Daniels & Daniels, 1991). No data were found in relation to the trend among Canadian faculty. With several Canadian provinces maintaining mandatory retirement, it is more difficult to predict whether or not the same trend will occur in Canada. Dreyer (1989) suggested that, because academics, like other white collar workers, consider work to be central to their existence, they tend to resist retirement, do not plan for it, and will resent it if forced to retire. The Carnegie Foundation for the Advancement of Teaching (1990), however, has suggested that this

trend may change because of the intentions of many faculty to retire early, as reported in the 1989 Carnegie survey. Four in ten faculty under the age of 60 expressed the intention to retire early. They tended to have lower salaries, but had higher earnings from outside activities and had spouses whose earned income was high. However, expressed intention to retire does not necessarily translate into a decision to retire, and no evidence was found, from a statistical perspective, that reflected such a shift in the age at which faculty are retiring.

One of the earliest studies reviewed that addressed faculty and their interest in early retirement was conducted by Patton (1977). He found, in a study conducted at the University of California, that 20% of the faculty planned to retire before the normal retirement age. Women were more likely to express an interest in early retirement than men. Participants identified dissatisfaction with work, poor health, being financially able, and development of outside interests as reasons that would lead them to retire early. He also found that full professors were more likely to plan on later retirement, whereas those who felt that there were limited opportunities to advance were more likely to plan on retiring early. However, there was no indication that the individuals who expressed an interest in retiring early actually did so. Although Patton's results provided useful insight into the issue of faculty attitudes to early retirement and suggested latent demand for early retirement, they were somewhat dated and their generalizability limited, given that the sample was drawn from only one university in the U.S. The important issue here is that faculty, in general, tend to retire later than individuals in the general population and, although some faculty may have intentions to retire early, this intention has not been

translated into an obvious trend.

The Retirement Decision.

The second category of findings involved the actual retirement process.

Regardless of the timing of retirement, faculty, as well as those in other occupations, at some point have to deal with the issue of retirement from their profession. Retirement, whether self-initiated or initiated by the employer, represents a major life decision for all individuals (Floyd et al., 1992). Retirement researchers have investigated the retirement decision-making process from a number of different perspectives. Some have relied on theoretical decision-making models to investigate this process (e.g., Prothero & Beach, 1984; Feldman, 1994; Toevs & Manhardt, 1982). Some have chosen to use extensive questionnaires that purport to capture the relevant and important variables in the retirement decision-making process (e.g., Barfield & Morgan, 1969; Monahan & Greene, 1987). Some have assigned variables to specific clusters, either in advance or after the fact (e.g., Daniels & Daniels, 1991; Kellams & Chronister, 1988). Regardless of the conceptual basis for the study, researchers have implicitly assumed that individuals are most likely to make the decision that is in their own best interest. Some researchers have assessed this principle on the basis of whether the individual looks forward to retirement or not, usually using attitude to retirement as the measure. Others have attempted to operationalize it by referring to the push and pull variables influencing the retirement decision (Daniels & Daniels, 1991) or have used the concept of gains and losses associated with retirement (Anson, Antonevsky, & Shifra, 1989; Antonevsky et al., 1990). In any event, they all have acknowledged, in one way or another, that each

individual assessed whether his or her best interest was served by staying or leaving and that this required not only an assessment of the status quo but also of the individual's expectations about life after retirement.

Factors Influencing the Retirement Decision.

Researchers have investigated a wide range of variables in attempting to understand what motivates an individual to take the retirement or early retirement decision and to identify the variables that predict who will leave and who will stay. Daniels and Daniels (1991) have suggested that all of these variables can be categorized as either subjective, demographic, or structural. Subjective variables, related to finances, health, and attitude to work, have received considerable attention as predictors of retirement, although researchers have also investigated variables related to other subjective domains, such as family life and social life. Some researchers have investigated these variables from a broad perspective. Prothero and Beach (1984) for example, suggested that there were three clusters of subjective variables--financial, personal, and occupational. They also took into account the relative importance of these variables. Others investigated very specific and more narrowly-defined variables. Lozier & Dooris (1991) investigated eighteen subjective variables ranging from broad variables like personal health to narrow ones like interaction with co-workers. Researchers, in general, have usually included some of the more obvious demographic variables such as age and gender in their studies, as well as structural variables such as occupation and rank. In many instances, a theoretical rationale for the variables selected for study was not provided.

The findings of the research related to the specific variables influencing interest in

retirement and early retirement were very mixed. In some cases, these variables have been found to have a significant influence on the retirement decision, whereas in other cases, significant relationships have not been found. For example, Monahan and Greene (1987) found that age was not a predictor of opting for early retirement, whereas Daniels and Daniels (1991) found that it was. Significant results have, on occasion, even been in opposite directions. Fillenbaum, George, and Palmore (1984) found that those with a higher salary were more likely to take early retirement whereas Belgrave (1988) found that individuals with lower salaries were more likely to do so.

These inconsistent findings probably occurred for a number of different reasons. First of all, many different methodological approaches were used. The studies involved different occupational groups and different organizational dynamics. Some of the research included participants who were already retired at the time of the study, requiring identification of the reasons for taking retirement retrospectively. The research also spanned approximately three decades. The significant economic, demographic and social changes that occurred over this time span, and changes in how retirement is defined and viewed by individuals (Schellenberg, 1994), may all have contributed to inconsistent results. Feldman (1994), in writing about early retirement, suggested that too often the research was not based on theoretical propositions but rather on post hoc results, and that this explained the inconsistent findings.

Retirement and Work.

Of the many variables influencing interest in retirement and early retirement, work, in particular, has been the focus of much of the research. There is a commonly held view

that how individuals feel about their work will have a major influence on their attitude to and interest in retirement. In reviewing the retirement literature, Schnore (1985) noted that theories and research findings about the relationship between work and retirement were often inconsistent. Some researchers investigated the relationship between attitude to work or job satisfaction and attitude to retirement, and found they were negatively correlated (Barfield & Morgan, 1969; Patton, 1977). In other words, the lower the level of job satisfaction, the greater the interest in early retirement. Other studies found that there was no relationship between the two (e.g., Fillenbaum, 1971).

Schnore (1985) suggested that inconsistent findings had been obtained because researchers should have been testing the relationships between attitude to retirement and both work satisfaction and importance of work. He hypothesized that treating importance of work separately from job satisfaction was critical in understanding the relationship between work and attitude to retirement. In a study conducted in 1985, he found that there was no relationship between job satisfaction and attitude to retirement but there was a significant, negative relationship between importance of work and attitude to retirement. Job satisfaction did not appear to influence interest in taking retirement, whereas the more important work was to an individual, the less interested the individual was in taking retirement. Although Schnore's results supported the premise that knowing about an individual's level of job satisfaction would not be of assistance in predicting attitude to retirement, it would be premature to assume that the same would be true in relation to faculty and interest in early retirement. His sample included a wide array of participants drawn from many different sectors of the economy in southern Ontario. Given some of

the unique characteristics of faculty, it would be inappropriate to assume that these results can be extrapolated to them. Near and Sorcinelli (1986) found that work satisfaction was influenced by satisfaction with non-work domains, but no literature was identified that concluded the same about importance of work. This interplay between work satisfaction and non-work satisfaction may also have been a factor that would explain Schnore's results regarding satisfaction with work.

Another issue related to work and attitude to retirement that has been investigated is that many individuals, after taking retirement or early retirement, do not cease to work, they simply shift into new work roles (Sterns, Matheson, & Schwartz, 1989; Kilty & Behling, 1985). In some instances, individuals may be motivated to take early retirement so that they can do just this. Dorfman (1985), in a comparative study of faculty in the United States and Britain, found that 75% of faculty did continue to work for income beyond formal retirement. This was similar to the findings of Kellams and Chronister (1988), in whose study 81% of the faculty who opted for early retirement reported continuation of professional academic activities into retirement. Likewise, Patton (1979) found that 62% of the retired faculty in his study had been employed after taking early retirement. These studies suggest that consideration of whether to work beyond retirement probably constituted an important element in the decision-making processes of these faculty.

The findings of studies on the timing of retirement, the decision-making process, the variables influencing the retirement decision, and the role of work in relation to the retirement decision, provided useful guidance and context in developing the conceptual

approach used in this study. They highlighted the fact that faculty do not tend to retire early and once they do retire, they often continue to work. They demonstrated that the retirement decision for all individuals, faculty included, is a complex one involving many variables that combine in unique ways to influence this decision (Ferraro, 1990; Schnore, 1985; Spacapan & Oskamp, 1989; Feldman, 1994). What was not demonstrated conclusively were the actual predictors of interest in retirement. As Antonevsky et al. (1990) have noted, the ultimate selection of variables for study are a function of "what makes sense to the researcher" (pp. 59). Of the research reviewed, there appeared to be two approaches taken. Some attempted to identify very specific variables of potential relevance, whereas others reduced specific variables to major clusters of variables. Those who attempted to reduce the number of subjective variables to a smaller number of higher order variables seemed to provide the most appealing conceptual approach to understanding how individuals assess the variables of importance to them. Their approach had appeal because it reflected the hierarchical nature of the retirement decision, whereby individuals take into account a wide range of variables, assess them, place them in clusters, and ultimately reduce them to a decision. Prothero and Beach (1984), for example, based their study on this conceptual approach. They argued that it provided individuals with flexibility in taking into account whatever more specific variables were important to them in relation to a particular domain. Of the studies reviewed that identified clusters of variables, six major domains consistently appeared. These involved family, social life, health, finances, emotional life, and work.

Faculty and Early Retirement Programs.

Many universities, in both Canada and the United States, have implemented voluntary early retirement incentive programs over the past fifteen to twenty years and, in a few instances, research has been carried out in conjunction with a few of the United States' programs (Daniels & Daniels, 1991; Kellams & Chronister, 1988; Monahan & Greene, 1987; Patton, 1977). No similar studies were found in relation to such programs in Canada.

Three studies have been reviewed that were conducted within the past decade. Two of them involved both faculty who had opted for early retirement and those who had not. The third involved only those who had taken early retirement. The first two were interested in identifying the predictors of faculty interest in early retirement and all three were interested in understanding what motivates some individuals to leave.

Daniels and Daniels (1991) conducted a study related to an actual early retirement program and were thus able to obtain data from individuals who accepted the early retirement offer as well as those who did not. Their objective was to determine which subjective, demographic and structural variables predicted the early retirement decision. Rather than reporting on many individual subjective variables, they decided to place them into three separate clusters. They referred to the potential gains in retirement as the pulls of retirement and the negative aspects of work as the push variables. They then created a category called the status quo that represented both perceived losses in taking early retirement and perceived gains in staying. They also investigated several other demographic, structural, and behavioural variables.

They found that acceptors differed significantly from rejecters. Acceptors were older, had more years of service, had lower salaries and derived less satisfaction from scholarly activity. Acceptors were influenced more by the pushes of work and pulls of retirement and less by the status quo. They were more likely to anticipate an improvement in their quality of life after early retirement and were more likely to engage in planning activities. Daniels and Daniels (1991) also noted that the factors themselves and their importance varied by age groups and by type of institution.

The fact that their study was conducted in conjunction with an actual early retirement incentive program, and that they had an opportunity to include both individuals who took early retirement and those who did not, made their findings very valuable in the context of this study. In particular, their findings related to the variables that differentiated acceptors and rejecters provided useful guidance in the selection of relevant variables for inclusion here. Of particular interest was their finding that acceptors were more likely to anticipate an improvement in their quality of life than rejecters. However, in this study, as in much of the literature, there was no clear theoretical basis provided for the selection of the specific variables investigated. They did not identify the subjective variables that were included in the push, pull and status quo categories, or what technique was used to derive these higher order subjective variables. They also did not provide any overall or global measure for these subjective variables. Their approach resulted in an empirical description of a given sample at a given time and place and such an approach was valuable for the particular description it provided and for the inferences about the underlying social and psychological processes involved.

Like Daniels and Daniels (1991), Monahan and Greene (1987) were interested in identifying the predictors of interest in early retirement as well. They also were able to conduct their study in conjunction with an actual program. They selected a number of very specific subjective, demographic and structural variables and investigated each of them on the basis of specific hypotheses or questions. They found that acceptors were in poorer health and suffered lower proportional decrements in income. In relation to work, they were more likely to rate themselves as highly productive on teaching and community service and lower on research, were less satisfied with teaching assignments, felt less adequately consulted, felt less well recognized within their organization, and experienced a poorer fit with their departments. Unlike Daniels and Daniels (1991), they found age did not significantly differentiate acceptors from rejecters. Although the findings related to age were not significant, they did find in their sample, that the higher the age, the less likely participants were to take early retirement.

Again, their study was useful in identifying some of the variables that seem to play an influential role in faculty decisions related to early retirement, and they did provide a rationale for the inclusion of specific variables in their study. Although they acknowledged that the decision required of faculty involved a complex mix of considerations, and they justified the inclusion of the variables they investigated, they ignored many other variables that have an impact on the retirement decision in areas such as family life, social life, emotional life and other variables affecting attitude to work. Like Daniels and Daniels (1991), they did not provide an overall measure that could be used to predict who would leave and who would stay.

The third study by Kellams and Chronister (1988) had a very different and more narrow focus than the other two. It was primarily concerned with studying early retirees, and with determining why both productive and non-productive faculty opted for early retirement. The study was not concerned with the demographic and structural predictors of interest in early retirement, focusing instead on the subjective variables influencing the decision. Although Kellams and Chronister (1988) were most interested in the post-retirement period of early retirees, they did ask participants to identify retrospectively the reasons why they had taken early retirement. These reasons were then divided into five categories: professional problems, organizational problems, personal problems, benefits offered, and opportunities pursued. Their study concluded that each individual was motivated by a different mix of these factors; however, certain patterns emerged. High producers responded to the pulls of retirement; these took the form of opportunities and/or personal problems, whereas the low producers were pushed to retire by either professional and/or organizational problems.

Their study provided evidence that productivity was not necessarily a predictor of interest in early retirement. They found that individuals all along the productivity spectrum had left, but that they had done so for quite different reasons. Their findings tended to support the view that the characteristics of faculty, such as their productivity level, are not that relevant in understanding who will go and who will stay when early retirement incentives are offered. Rather, from their approach, it appeared that understanding the subjective variables that motivate faculty to leave and the extent to which different combinations of these subjective variables explain why particular

individuals choose to go may be more appropriate. In their case, the issue of interest was productivity and they were able to demonstrate that faculty who reported high levels of productivity left for very different reasons than those who reported lower levels of productivity. The former were pulled towards retirement by either outside opportunities or because of problems in the family such as health of a spouse. The latter were more likely to leave because of push factors related to negative characteristics of their work.

There were limitations, however, with respect to this study that suggested the findings be treated with some caution. The conclusions would have been strengthened if they had also included a sample of the individuals who did not take early retirement to determine whether the same phenomenon was occurring with these individuals. Secondly, they did not provide any indication of how they arrived at their five clusters. They made no reference to the use of any particular statistical procedure in arriving at these clusters and, in the absence of such a reference, the data is best considered as an empirical description. Some of their findings were also based on relatively liberal alphas.

The findings from these studies of faculty and early retirement tended to confuse rather than to clarify. As with the general research on retirement decision-making, the approaches used by these researchers were different, different variables were examined and different, sometimes inconsistent and even contradictory, findings were reported. Nonetheless, there were a number of important similarities. All three studies highlighted the complexity of the decision-making process that faculty experienced in deciding whether to accept an early retirement incentive or not. The first two studies found that for many demographic and structural variables there was no evidence of differences between

those who took early retirement and those who did not. All three studies showed that those who took early retirement did so for a variety of different reasons. It appeared that the early retirement decision could not be predicted from a standard and uniform set of demographic and structural variables, but that greater understanding could be gained by investigating the subjective variables motivating different kinds of individuals to take early retirement.

Quality of Life

Because the retirement decision appeared to be affected by the individual's perceptions about their quality of life and their anticipated quality of life after retirement, the literature on the concept of quality of life was reviewed. Doing so seemed particularly appropriate given the fact that many retirement researchers had made use of the concept of quality of life when investigating satisfaction with life after retirement. The most important source of information on the concept and how it has been measured was a major study in the United States by Campbell, Converse and Rogers (1976). Their work in this area was particularly influential in designing the quality of life approach used in this study because they provided a detailed theoretical basis for the concept, as well as an empirical measure of satisfaction with quality of life. They noted its elusive nature and the difficulties inherent in trying to measure it, but then proceeded to provide a detailed explanation of how to deal with these difficulties. In essence, they proposed that individuals' perceptions about their quality of life could be measured by determining their level of satisfaction with it. Furthermore, they concluded that any attempts to measure satisfaction with quality of life should involve not only a global rating of satisfaction with

quality of life but also domain-specific ratings. Campbell et al. (1976) argued that a global measure alone would not provide any insight into the contribution of the particular domains to overall satisfaction with quality of life, and it was therefore desirable to obtain data on both. They adopted the concept of satisfaction with quality of life from Cantril (1965) who had utilized this concept in investigating the predictors of life satisfaction. The now-famous Cantril self-anchoring ladder, was based on the premise that satisfaction with quality of life was determined by the gap between an individual's personal aspirations and his or her actual situation (Maddox, 1992).

The study by Campbell et al. (1976) and other studies related to quality of life in general, and quality of life and retirement, identified many different variables that contribute to quality of life. Many of these variables were similar to those identified by the retirement literature. The variables ranged from broad domains such as health and finances to very specific ones such as housing, community, difficulties with people at work, etc. For example, Palmore and Kivett (1991) noted that health, socioeconomic status, and social activity were important factors contributing to life satisfaction. Maddox (1992) identified income, health, family, neighborhood, and community as factors affecting quality of life. Floyd et al. (1992), in a study that looked at reasons for retirement using life satisfaction measures, included factors related to work, family, health, leisure, and income. Various methods were used, including factor analysis, to identify these higher order domains. Campbell et al. (1976) identified 15 clusters or domains based on their literature review and not on factor analysis. In this review of the studies that did identify the broad domains making up quality of life, six domains in particular

seemed to appear consistently. They were: finances, health, work, family life, social life, and emotional life. Of the studies that focused on more specific variables, it appeared that most of the variables identified fell into one of these six broad categories.

Another important issue identified by Campbell et al. (1976) involved the need to consider the importance of the relevant domains in measuring satisfaction with quality of life. They even suggested that an individual's assessment of his or her quality of life could best be determined by a summation of weighted domains. This issue has been identified as an issue of concern in a number of different areas of psychological research (Campbell et al., 1976). From an intuitive perspective, it is easy to believe that there is individual variation in the importance different individuals attach to the different domains making up quality of life. For instance some individuals consider work to be of utmost importance whereas others do not. In the context of a decision about early retirement, it is also easy to believe that the different domains will hold different levels of importance for each individual. In the retirement literature, researchers such as Prothero and Beach (1984) have certainly argued that the importance of the domains needs to be taken into account. The same issue was identified by Lozier and Dooris (1991). When they asked faculty to identify the reasons they opted for early retirement, they found a very wide spread in the responses on particular variables. For example, whereas 60% said that the availability of early retirement incentives was not important at all in their retirement decision, 20% indicated that it was very important. Although it was not within the scope of this study to fully explore the advantages and disadvantages of using weights in assessing satisfaction with quality of life, the fact that researchers from both a quality of life perspective and

from a retirement perspective have noted this issue, suggested there was some merit in taking them into account.

The quality of life literature has demonstrated that an individual's assessment of satisfaction with quality of life can be measured from both a global and a domain-specific perspective. It has also demonstrated how the concept of satisfaction can be utilized in measuring quality of life. The domains most often identified have involved family, social life, health, finances, emotional life and work and researchers have noted that individuals assign different levels of importance to these domains. Lastly, the concept of satisfaction with quality of life has been utilized effectively in many studies of satisfaction with the quality of life of retirees.

Retirement and Quality of Life. A Conceptual Framework

An important conclusion that emerged from the literature review, was that understanding the motivations of those who decide to leave when early retirement incentives are offered was more important than understanding whether specific characteristics of the individuals were predictors of interest in early retirement. The findings of the literature on retirement suggested that some demographic and structural predictors might emerge in a specific context. However, these predictors varied considerably from one study to the next and no clear pattern of predictors emerged. The findings related to the subjective variables influencing the retirement decision did seem to offer more promise. Researchers did identify possible ways in which the subjective variables could be placed in clusters to reflect the broad kinds of subjective variables of importance. The Campbell et al. (1976) study provided the most useful theoretical basis

for measuring satisfaction with quality of life and it provided clues to the design of a framework within which the many different subjective variables that individuals must consider as they contemplate early retirement could be viewed. However, the study itself was not conducted in the context of retirement or early retirement. Prothero and Beach (1984), however, did study the retirement decision-making process and, like Campbell et al. (1976) they used clusters or broad domains to investigate how individuals arrived at a decision. They also used a number of similar domains.

Based on their theoretical approaches, and on the broader literature review, a decision was taken to construct a new framework for assessing faculty interest in early retirement. It was important to develop a framework that would accurately reflect the decision-making process that individuals use when they are considering early retirement. Several elements were essential in building this framework. First, it was noted from the literature that individuals have both an overall sense of their quality of life, but they also have views about the separate domains comprising quality of life. This suggested the desirability of an approach that would produce not only an overall measure of satisfaction with quality of life but specific measures of certain higher order domains as well. Drawing on both the retirement literature and the quality of life literature, six domains emerged as the primary domains making up quality of life. These domains were family, social life, health, finances, emotional life, and work. Secondly, the literature also noted that individuals take into account how important these major domains are in contributing to their quality of life, and it seemed appropriate and feasible to design a framework that would also capture this information. Thirdly, the quality of life literature identified the

value of using some measure of satisfaction to assess how individuals feel about their quality of life. Because the concept of satisfaction reflects the difference between an individual's goals compared to their actual situation, it was appropriate to build into the framework some measure of both of these elements of satisfaction. Based on these three elements, an overall equation was designed to produce a global measure or index reflecting the difference between an individual's overall satisfaction with their current quality of life and their anticipated quality of life after taking early retirement. By doing so, it was possible to identify who expected to gain or lose by opting for early retirement.

It was felt that this conceptual approach and its operationalization in a faculty context would not only add to our understanding of faculty interest in early retirement, but would also serve as a practical tool. It would serve the interests of individuals who are required to consider early retirement by providing a framework within which they could consider their overall quality of life and how it would be affected by opting for early retirement. It could also serve the interests of administrators as it would provide them with an indication of how satisfied or dissatisfied faculty were, not only in terms of work, but in the other domains of life as well. Furthermore, if the conceptual approach was found to be sound, it could provide administrators with valuable information about how many faculty might have an interest in taking early retirement, about why they might want to do so, and about the group of faculty who would be most likely to stay. To the extent that the approach was used in an organizational setting within the context of an early retirement incentive program, it would provide institutions with information not only with respect to the group of individuals interested in leaving, it would also provide information

about the different kinds of faculty that wanted to stay.

In relation to the first purpose of the study (to achieve a better understanding of faculty interest in early retirement), it was hypothesized that faculty who expected to improve their quality of life after early retirement would be more likely to indicate an interest in opting for voluntary early retirement than those who expected their quality of life to decline. Testing this hypothesis involved dividing the sample into two groups based on those who anticipated gains and those who anticipated losses in satisfaction with quality of life. These groups are referred to in the results section as the 'Gain' group and the 'Loss' group.

It was further hypothesized that the group of individuals who anticipated gains in quality of life and who also reported relatively low levels of current satisfaction with their quality of life would be even more likely to express an interest in an early retirement incentive. Testing this hypothesis involved dividing the sample into four groups based on their anticipated gain or loss in satisfaction with quality of life and their level of satisfaction with current quality of life. This resulted in the creation of four groups that have been referred to as the 'Target' group, the 'Flexible' group, the 'Core' group and the 'Trapped' group. A more detailed description of how these groups were formed is provided in the results section. The groups of individuals created by the quality of life approach were not necessarily expected to be different in relation to either demographic or structural variables. It was likely that some differences of significance might be found; however, it was assumed that these would occur because of unique features of the sample and not because they represented universal predictors of interest in early retirement.

In relation to the second purpose of the study (to evaluate the quality of life approach and its operationalization), it was expected that the analyses would confirm that the quality of life approach used in this study was conceptually and psychometrically sound.

Methodology

Materials

No existing questionnaires for measuring satisfaction with quality of life were found that encompassed the critical elements noted previously. Therefore, a Quality of Life (QOL) Inventory was specifically designed to measure satisfaction with quality of life in the context of early retirement. The design was based on preliminary, unpublished work that had been carried out by Renner and Pilkington, and on the conceptual framework described in the previous section. A pretest of the draft QOL Inventory was carried out (Conroy, 1994). The pretest involved a sample of 12 subjects, some of whom were university faculty and staff and some of whom were public servants. The data collected were combined with data for 10 subjects that were collected a number of years earlier by Renner and Pilkington. The pretest demonstrated that most subjects were able to conceive of quality of life in the manner identified in the QOL Inventory. Analysis of the pretest data and feedback from participants led to a number of modifications to the preliminary version of the Inventory to make it easier for participants to complete. One of the decisions taken was to collect the data through a mail-out rather than using interviews in order to increase the number of subjects from whom data would be obtained, and to avoid sampling issues by polling the entire population at Carleton University. The QOL

Inventory was also shortened considerably and two new separate sections were added to it to collect demographic, structural and attitudinal data from the participants. The final Questionnaire was thus comprised of three sections.

A copy of the Questionnaire is attached, together with the instructions that accompanied it (see Appendix). The first section, the QOL Inventory, required each subject to think about their level of satisfaction with respect to the six major domains comprising quality of life. These were family, social life, health, finances, emotional life, and work. A general definition was provided for each domain. For each of these domains, participants had to assign scores from 1 to 100 for the current state of that domain, their current goal for that domain, and the importance of the domain. Each subject then had to carry out the same thought process in relation to their anticipated quality of life post-early retirement.

The measures of overall satisfaction with current and anticipated quality of life were obtained using the following steps. First, the gap or difference between actual state and goal was obtained for each domain.

$$\text{Actual State} - \text{Goal} = \text{Gap}$$

It was assumed that this number would generally be negative because most individuals were not expected to be surpassing their goals. However, it was noted in the instructions that it was possible that some individuals in some domains might assign a score for state that was higher than their goal. Once the gap between state and goal was identified for each domain, it was then multiplied by the weight participants assigned to the domain.

$$\text{Gap} \times \text{Weight} = \text{Domain Score}$$

This produced six satisfaction scores, one for each domain. These were then summed and divided by six to produce the individual's overall QOL score:

$$\text{QOL (Family + Social + Health + Finances + Emotional + Work)}/6 = \text{Overall QOL}$$

These computations were carried out twice, once to obtain the scores for Current Quality of Life (Current QOL) and then to obtain the scores for Anticipated Quality of Life (Anticipated QOL). Once this measure of satisfaction was derived for Current QOL and Anticipated QOL, the Quality of Life (QOL) Index was obtained by subtracting Current QOL from Anticipated QOL:

$$\text{Anticipated QOL} - \text{Current QOL} = \text{QOL Index}$$

Based on the derivation of the QOL Index, a positive number would represent an anticipated gain in quality of life whereas a negative number would represent an anticipated loss in quality of life.

The second section of the Questionnaire required each subject to provide demographic and structural information. The demographic variables included were those that most commonly appeared in research studies on quality of life or retirement (e.g., Campbell et al, 1976; Daniels & Daniels, 1991). These included age, gender, marital status, children, salary of participant and spouse, and education. The work-related or structural variables included faculty affiliation, rank and years of service at Carleton University, among others.

In the third section, participants were presented with a number of statements related to the work domain and to voluntary early retirement. They were asked whether they strongly disagreed, disagreed, agreed or strongly agreed with the statements. As

noted earlier, the role that importance of work and work satisfaction play in retirement decisions has been extensively researched. Several specific statements were included on work in an attempt to arrive at a clearer understanding about the role work plays within the context of quality of life and faculty attitudes about early retirement. They were also included to assist in the evaluation of the psychometric properties of the QOL Inventory and to evaluate the representativeness of the sample. The work-related statements were drawn from the surveys described in the introduction, with most coming from the 1989 Carnegie survey. Statements were also included related to retirement intention and early retirement incentives so that the relationship between an individual's perceived gain or loss in opting for early retirement and an individual's interest in early retirement could be assessed. The statement related to interest in early retirement if offered an adequate financial incentive served as the primary dependent variable for testing the relationship between quality of life and interest in early retirement and the other related to retirement intention was used as a secondary dependent variable.

Procedure

Seven hundred and fifty-four Questionnaires were mailed out to all faculty at Carleton University in March of 1995. The Questionnaires were accompanied by a letter that explained the purpose of the research and that provided them, on the reverse, with a check list comprised of four options. Firstly, individuals had the option of indicating they did not wish to participate. In this case they were asked to return the unfilled Questionnaire and the check list. They had three options if they did wish to participate. They could fill out and return the Questionnaire in the envelope provided and return the

check list in a separate envelope indicating their agreement to participate. In this option, their Questionnaires would be completely anonymous. They could fill out and return the Questionnaire but ask for feedback on the general results. These Questionnaires would also be anonymous. Or they could fill out and return the Questionnaire and the check list together indicating they wished to receive personal feedback. Those who selected this option would be the only individuals whose Questionnaires would not be anonymous. In July, 1995, a second letter was mailed to all those who had not responded to the first mail-out.

Results

The results have been divided into three sections. The first section involves a description of the sample and specific sampling issues that had to be addressed before statistical analyses could be carried out. The second section provides an overview of the findings related specifically to the QOL Inventory. These findings were of importance in testing the psychometric properties of the QOL Inventory and in determining how the participants felt about their Current and Anticipated QOL. The third section outlines the findings obtained when the relationship between quality of life and interest in early retirement was examined. An alpha level of .05 was used for all tests of significance, except where otherwise noted.

Characteristics of the Sample

Participants

Of the 754 Questionnaires mailed out through the Carleton University campus mail system, 445 replies were received or 59% of the total. Of these, 63% indicated that they

did not wish to participate. The remaining 37% or 166 individuals indicated that they would. One hundred and fifty-five individuals fully completed or partially completed and returned the Questionnaire as of the end of September, 1995. Eleven individuals who did say they would participate had not returned their Questionnaires by that time. The sample size, therefore, was 155. This represented a 21% return rate.

One hundred and thirteen males (73%) and 42 females (27%) participated in the study. Ages ranged from 29 to 70 and the distribution was bimodal. The median age was 51; the mean age for males was 51, $SD = 10.9$, whereas the mean age for females was 44, $SD = 7.8$. There were no females over the age of 55 in the sample. The participants had an average of 16 years of service at Carleton University. Eighty-eight percent of the participants were tenured, 74% earned \$60,000 or more and 74% were either full professors or associate professors.

Attitudes to Work

In order to draw conclusions about the sample in relation to work, their attitudes to work were noted. A fairly high proportion of the participants appeared to be relatively satisfied with their careers. In reporting the following results for the sample ($N = 155$), it should be noted that the percentages were based on those who actually responded to each statement; in each case some participants did not respond. Fifty-five percent were more enthusiastic about their work than when they began their careers. Eighty-four percent did not feel trapped in a job with limited opportunities for advancement. Eighty percent considered that they received the recognition they deserved from their departments. Seventy-four percent reported that their careers were moving

along as they wanted them to and sixty-nine percent indicated that their jobs were not a source of personal strain. Three quarters of the sample indicated they were satisfied with their overall work situation. Just over half of the participants, however, either disagreed or strongly disagreed that their organization was managed effectively.

Incomplete QOL Inventories

Of the total sample, 116 participants fully completed the QOL Inventory section of the Questionnaire, whereas 39 did not. This made it impossible to calculate a QOL Index (the measure of anticipated gain or loss in quality of life) for 39 cases and posed a problem with respect to statistical analysis because the QOL Index was the primary independent variable required to test both of the major hypotheses of the study. In order to determine the best course of action, several steps were taken. First, statistical analyses were carried out to identify whether there were any characteristics of the 39 cases that were significantly different from the characteristics of the 116 cases. All of the demographic and work-related variables were tested using Pearson chi-square analysis with an alpha of .001. This more conservative alpha was used given the number of variables being tested. In order to ensure minimum cell size, some variable categories were collapsed. Table 1 provides a list of the independent variables that were tested and the categorization that was used in each case. There were no significant differences found between the group who fully completed the QOL Inventory and the group that did not. Table 2 provides the results of the analysis.

Second, the means for each of the Current QOL variables were also compared for the two groups, using t-tests for independent samples. This was possible since most

individuals in the smaller group did complete the Current QOL component of the Questionnaire. Again, no significant differences were found. The results are summarized in Table 3.

Third, a qualitative analysis was carried out with respect to the 39 cases. Doing so was possible because a number of individuals provided written comments for those parts of the QOL Inventory that they chose not to fill out. Some individuals specifically indicated they had difficulty understanding the format. These cases tended to involve difficulties differentiating between goal and weight. Another difficulty involved a lack of understanding of the term "Actual State" when dealing with Anticipated QOL. Only 2 of the 39 individuals fully and properly completed the Anticipated QOL component of the Inventory, whereas 22 of the individuals did complete the Current QOL component. For those who did not fill out the Anticipated QOL component, the requirement to deal hypothetically with quality of life after early retirement may have been a key contributor to the number of incomplete QOL Inventories. A number of those who left this component blank specifically indicated they did so for this reason, and in most cases these individuals were under 45. A few of the individuals who left parts of the QOL Inventory blank indicated either directly or indirectly that they had difficulty understanding what kind of numerical scores were required. For example, in a few instances, weights were allocated for each domain such that they totalled 100. In a few cases, the comments generally suggested that the individuals did not understand what was required of them.

The results of the two statistical analyses and the qualitative analysis carried out, led to a decision to set aside the 39 cases whenever the statistical analyses involved the

QOL Inventory. All analyses involving the QOL Inventory, therefore, involved 116 cases, unless otherwise noted. In all other analyses, data on the full sample ($N = 155$) were used.

Work Scores

A decision also had to be taken regarding the fact that 30% of the subsample ($n = 116$) indicated that they did not anticipate working after acceptance of early retirement or voluntary separation. They indicated this by leaving blank the anticipated actual state, anticipated goal and anticipated weight variables for the work domain in the QOL Inventory in accordance with the instructions. This meant that an Anticipated QOL score for the work domain for these individuals could not be calculated and could only be produced for the other five domains (family, social life, health, finances, and emotional life). Because the Anticipated QOL score for each individual was supposed to be derived by summing the QOL scores for the six domains and dividing by six, this presented a problem. It meant that for 70% of the sample, the Anticipated QOL scores would be based on six scores and for the 30% who did not plan to work, it would be based on five scores. One option was to throw these cases out. This was not desirable, given the number of cases involved, and would not have been appropriate because the reason for the absence of this data was valid and logical. In order to ensure that these cases could be used in the analyses related to the QOL Index, these cases were assigned zeros for anticipated quality of work life. This decision was based on the view that work after early retirement would have no relevance for these individuals and would thus have zero impact on their satisfaction with quality of life.

Satisfaction with Quality of Life

The analyses that were carried out using the data generated by the QOL Inventory served two separate purposes. First of all, they were carried out to examine the psychometric properties of the QOL Inventory because it was important to evaluate the conceptual soundness of the quality of life approach. Secondly, they were carried out to assess how participants viewed their Current QOL and their Anticipated QOL, how they felt about work in particular, to identify those who anticipated gains or losses in quality of life after early retirement (QOL Index), and to assign individuals to one of four groups ('Core', 'Flexible', 'Trapped', and 'Target') based on the QOL Index and their Current QOL.

As noted earlier, the Current and Anticipated QOL scores for each individual were derived by first determining the gap or difference between actual states and goals for each domain. This gap (in most cases a negative number) was then multiplied by the weights to produce an overall QOL score for each domain. An individual's overall Current and Anticipated QOL score was then determined by dividing the sum of these QOL domain scores by six. The QOL Index was then obtained by subtracting Current QOL from Anticipated QOL. All of the analyses in this section were based on the subsample ($n = 116$) for reasons noted earlier.

Satisfaction with Current QOL and with Anticipated QOL

This set of analyses were carried out to investigate whether or not participants were able to assign scores to the various components of satisfaction in meaningful ways and to examine their reported levels of satisfaction with quality of life overall and with the individual domains. The distribution of scores for overall Current QOL and Anticipated

QOL were negatively skewed, with scores ranging from -4667 to 0 and -7000 to 46, respectively. Most individuals did report some discrepancy between their goals and their actual states for quality of life and this resulted in a large number of negative scores. A much smaller number of individuals had scores that were either zero or positive. These individuals either felt there was no discrepancy between their actual states and their goals or they felt they were surpassing their goals.

The mean score for Current QOL was -1256, with SD = 852. The median, -1192, was somewhat higher because of the skewness of the distribution. On average, participants expressed greatest current satisfaction with their work lives and their emotional lives and least satisfaction with their social lives and their financial situation. The means and standard deviations for each domain and for Current QOL overall are displayed in Table 4.

The mean score for Anticipated QOL was -1030, with SD = 909. Again, the median, -833, was somewhat higher because of the skewness of the distribution. On average, participants anticipated that they would experience greatest satisfaction with family, social life and work after taking early retirement. They anticipated being much less satisfied with their health, emotional life and especially their finances. The results are reported in Table 4.

In order to determine whether relationships existed between the six domains, inter-correlation matrices were produced using the Current QOL scores and the Anticipated QOL scores. Table 5 and 6 provide the results for Current QOL domains and Anticipated QOL domains. In Table 5, in all cases, there were relatively low, positive correlations.

Table 6 presents similar intercorrelations of the domains for Anticipated QOL. Here the correlations were slightly higher.

Current QOL versus Anticipated QOL

One of the main purposes in carrying out the analyses reported in this section was to investigate whether the QOL approach was conceptually sound. They were also carried out to identify how participants' feelings about their quality of life were expected to shift from before to after early retirement. This section summarizes how participants felt about their Current QOL in relation to Anticipated QOL for the six domains and overall. It also reports on each of the components that contributes to the QOL scores. These were states, goals, and weights. In exploring the relationships between the current and anticipated scores, two types of analyses were carried out in each case. First, current mean scores were correlated with anticipated mean scores. Second, the current and anticipated means for each domain were compared to determine where shifts were occurring in the domains and to what extent they were.

Quality of Life Scores.

There was a moderately strong positive correlation between the scores for Current QOL overall and for Anticipated QOL overall, with $r(116) = .45$, $p < .001$. A similar result was obtained when the Current QOL and Anticipated QOL scores for each domain were correlated. Results ranged from $r(116) = .59$ for health to $r(116) = .21$ for work. All correlations were significant, with $p < .001$, except for the work domain, where $p < .05$ (see Table 7).

Overall, participants anticipated a modest gain ($M = 226$, $SD = 925$) in quality of

life post early retirement. Contributing to this were anticipated gains in social life ($M = 776$, $SD = 1334$), family ($M = 747$, $SD = 1405$), work, ($M = 349$, $SD = 1766$), and health ($M = 181$, $SD = 1080$). Losses in satisfaction with quality of life were anticipated with finances ($M = -594$, $SD = 1806$) and emotional life ($M = -104$, $SD = 1691$). Figure 1 describes these results.

States.

There was a moderately strong positive correlation between the mean scores for actual states and the mean scores for anticipated states, with $r(116) = .64$, $p < .001$. When the correlations were examined for each of the six domains, a similar result was obtained. For five of the six domains, the correlations were relatively strong, ranging from $r(116) = .72$ to $r(116) = .48$, with $p < .001$ in all five cases. In the case of work, the correlation was significant, but weaker, with $r(81) = .30$, $p < .01$. These results are presented in Table 7.

Figure 2 presents the results that were obtained when the mean scores for current states were compared to the mean scores for anticipated states. Participants anticipated a number of changes in the actual state of the six domains post early retirement. They anticipated gains in social life ($M = 14$, $SD = 18.46$), family life ($M = 10$, $SD = 19.02$), and health ($M = 2$, $SD = 14.81$); they expected their actual state to be negatively affected in relation to work ($M = -10$, $SD = 23.19$) finances ($M = -9$, $SD = 22.61$), and emotional life ($M = -1$, $SD = 19.31$).

Goals.

There was an even stronger positive relationship between the average current goals

and the average anticipated goals, with $r(116) = .88$, $p < .001$. When the correlations were obtained for the mean scores for each domain, a similar result was obtained. The correlations ranged from a high of .90 to a low of .46; for all six domains, $p < .001$ (see Table 7). The sample size for all but the work domain was 116; for work, it was 81.

On average, the anticipated goals also changed, but the changes were more modest (see Figure 3). Goals for family and social life increased, on average, by 2 ($SD = 8.26$) and 3 ($SD = 8.35$) points, respectively. Goals for health, finances, and emotional life dropped marginally. However, of the 81 individuals who expected to work post early retirement, the anticipated mean goal for work dropped by 12 points ($SD = 18.7$).

Weights.

There was also a strong positive correlation ($r(116) = .95$, $p < .001$) between the average weights faculty participants attached to quality of life now and the average weights they anticipated they would attach to the domains overall post early retirement. When correlations were examined for each domain, a similar result was obtained. The correlations ranged from $r(116) = .96$ to $r(116) = .71$, with $p < .001$ in all cases (see Table 7). The sample size for work was 81.

As with goals, the importance of the domains shifted, but for five of the six domains, only in a marginal manner. For these five, the shifts were all positive and ranged from .47 to 3.62. The exception was work. For those who expected to work post early retirement, work was expected to decline in importance by 7 ($SD = 15.84$) points. Figure 4 provides an indication of how participants expected the weighting of the domains to change.

It was noted in the introduction that there is controversy regarding the use of weighting of domains in models like the one used in this study. To determine whether or not it was appropriate and useful to ask participants in the QOL Inventory to identify the importance of each domain in arriving at an overall assessment of their satisfaction with quality of life, the raw scores for the gaps or differences between current states and current goals were correlated with the weighted Current QOL scores. There was a strong positive correlation, with $r(116) = .93, p < .001$. A similar result occurred when the gaps or differences between the current states and current goals for each domain were correlated with the Current QOL scores for each domain. Correlations ranged from .89 to .98, with $p < .001$ and $n = 116$ in all cases (see Table 8). The ranking of the six domains was also the same, regardless of which measure was used.

A similar result was obtained when the raw scores for the gaps or differences between anticipated states and anticipated goals were correlated with the weighted Anticipated QOL scores. There was a strong positive correlation, with $r(116) = .95, p < .001$ and the correlations for the domains ranged from .92 to .98, with $p < .001$ in all cases (see Table 8). The weighting of the raw gap or difference scores did, however, result in a small shift in the order of the domains. This weighting of the raw scores resulted in a reversal of the order of two domains. Family shifted from the domain of greatest importance to second place, whereas social life shifted from second place to first. The other domains remained in the same position.

On the basis of these results, it appeared that inclusion of weights for each domain was not that helpful in measuring level of satisfaction with the domains. However, before

drawing a conclusion about the value of having used weights for the domains, further analysis was carried out to determine if the weights had some relevance other than their contribution to the QOL scores. A decision was taken arbitrarily to investigate the current and anticipated weight scores on the basis of one of the demographic variables. Gender was selected. Almost all studies surveyed in the literature on retirement and quality of life have included gender as a variable whenever the sample included sufficient numbers of both. When the mean weights attached to the six domains for Current QOL and Anticipated QOL were compared on the basis of gender using t-tests for independent samples, significant differences were found for three domains--family, social life, and emotional life. Women assigned much higher current and anticipated scores, on average, to these three domains than did the men. The results are summarized in Table 9.

Quality of Work Life

Given the importance of the work domain and the critical role work plays in any decision involving retirement, this section reports on the results related specifically to the work domain. These results were drawn from the work domain scores generated by the QOL Inventory. Before conducting the analyses related to the work domain, however, the Current QOL scores for work were correlated with the scores for the statement in the third section of the Questionnaire related to overall satisfaction with work. This test was carried out to assess the validity of the quality of life approach in measuring satisfaction with work. A modest correlation was found, with $r(111) = .30, p < .01$.

Current QOL Work

The faculty in the subsample ($n = 116$) indicated that work was a very important

component of their quality of life. Their mean current goal for work was 83 ($SD = 12.14$) and their mean current state was 70 ($SD = 18.10$). Even though they were not meeting their goals for any of the domains, this gap between actual states and goals was the smallest. And even though they ranked work fourth highest in importance following health, family, and emotional life, they identified work as the domain in which they were experiencing the greatest satisfaction (as measured by the overall Current QOL score for work).

Current QOL Work versus Anticipated QOL Work.

In order to compare Current QOL Work scores with Anticipated QOL Work scores, the 116 cases were divided into two groups, the 30% who did not plan to work after early retirement and the 70% who planned to work after early retirement. For the former group, their Current QOL Work scores shifted from a mean of -1061, $SD = 1160$ to the arbitrary value of zero for Anticipated QOL Work. It was noted earlier that for these individuals, work was not expected to play any role in their lives after early retirement. Zeros were assigned to them for Anticipated QOL Work, accordingly.

The 81 participants who planned to work expected that the actual state of their new work lives would be lower than the current state of their work lives; the mean dropped from $M = 71$, $SD = 17.45$ to $M = 61$, $SD = 21.32$. However, they also expected they would lower their goals for work life. The average goal for work life dropped considerably from $M = 84$, $SD = 11.69$ to $M = 72$, $SD = 20.9$. When importance assigned to work now ($M = 80$, $SD = 15.26$) and post early retirement ($M = 73$, $SD = 22.39$) was taken into account, their mean level of satisfaction with Anticipated QOL

Work ($M = -970$, $SD = 1822$) was actually expected to be slightly higher than for their Current QOL Work ($M = -1012$, $SD = 1194$).

QOL Index

As noted earlier, 116 individuals fully completed the QOL Inventory section of the Questionnaire. This subsample ($n = 116$) of the total sample ($N = 155$) was comprised of the only individuals for whom a QOL Index could be computed. This index was computed by subtracting the Current QOL scores from the Anticipated QOL scores. A positive difference represented a gain in satisfaction with quality of life after early retirement; a negative difference represented a loss in satisfaction with quality of life.

As previously noted, the mean QOL Index was 226, with $SD = 925$, suggesting that, on average, participants expected some improvement in their satisfaction with quality of life after taking early retirement. The QOL Index scores ranged from an expected loss of -2767 to an expected gain of 2433; the distribution was normal. Sixty-seven percent of the participants expected their quality of life to improve (their QOL Index score was greater than 0), 33% expected it to decline (their QOL Index score was less than 0) and one participant expected no gain or loss (a QOL Index score of 0). An arbitrary decision was made to place this individual in the former group for purposes of statistical analysis. From this point on, the two groups will be referred to as the 'Gain' group and the 'Loss' group.

The mean QOL Index for those who expected to gain was 699, $SD = 593$, whereas the mean score for those who expected to lose was -744, $SD = 700$. Because the overall QOL Index reflected anticipated gains or losses across the six domains, these means were

of interest as well. Table 10 summarizes the means for the 'Gain' group and the 'Loss' group for each of the six domains. Because the two groups were identified on the basis of their QOL Index being above or below 0, it was not meaningful to test the differences in the means for the two groups, but the degree to which the scores were different was noted. The differences in means for work, finances and emotional life were very large (2001, 1889, and 1863, respectively). The differences were somewhat smaller for social life and family (1168 and 1058, respectively) and smallest for health (674). In the case of family, both the 'Gain' group and the 'Loss' group anticipated gains. The 'Loss' group anticipated losses in all other domains, whereas the 'Gain' group anticipated gains in all other domains.

The mean Current QOL score for those who anticipated gains in quality of life was -1467, SD = 786, whereas the mean score for those who anticipated losses in quality of life was -824, SD = 828. This difference was significant, with $F(1, 114) = 16.51, p < .001$. Means for Current QOL on the six domains of quality of life were compared for the two groups and Table 11 provides the results. The mean scores for Current QOL related to family, social life, emotional life and work were found to be significantly different for the two groups. For those who expected gains in overall quality of life after early retirement, their mean levels of current satisfaction with these domains were significantly lower than for those who anticipated losses in overall quality of life after early retirement. Their current levels of satisfaction with health, finances and work were also lower, but there was no evidence to suggest that these differences were significant.

The mean Anticipated QOL score for those who anticipated gains in quality of life

was -768, $SD = 558$, whereas the mean score for those who anticipated losses in quality of life was -1568, $SD = 1216$. The difference in these means was found to be significant, with $F(1, 114) = 23.66, p < .001$. Means for Anticipated QOL for the six domains of quality of life were also compared and Table 12 summarizes the results. The means for Anticipated QOL for three of the six domains of quality of life were found to be significantly different for the two groups. Those who anticipated gains in quality of life reported much higher anticipated levels of satisfaction with respect to finances, emotional life and work than those who anticipated losses. It should be noted that the 'Gain' group also reported higher anticipated levels of satisfaction with respect to the other domains as well, although the differences were not significant.

Four QOL Groups

The second hypothesis of this study was that those who anticipated gains in the quality of their lives and who also reported relatively low levels of satisfaction with their Current QOL would be the most likely group to indicate an interest in early retirement. In order to test this hypothesis, it was necessary to divide the subsample into four groups within the QOL framework using the two relevant variables. The two variables were Current QOL (current level of satisfaction with QOL) and the QOL Index (anticipated gain or loss in QOL). These variables were negatively correlated with $r(116) = -.48, p < .001$. The higher the level of satisfaction with Current QOL was, the lower the QOL Index was.

A decision had to be taken with respect to how to divide the sample into two groups on the basis of them being either 'more satisfied' or 'less satisfied' with their Current

QOL. Two choices were considered--using either the mean or the median. The median (-1192) was slightly higher than the mean score for Current QOL ($M = -1256$, $SD = 852$), but because the distribution of QOL scores was negatively skewed, the median appeared to be the better choice. The subsample was therefore divided into the 'more' satisfied group (Current QOL ≥ -1192) and the 'less satisfied' group (Current QOL < -1192). In the case of the QOL Index, the same breakdown was used as in the previous section. One group in the quadrant created by these two criteria included 28 individuals who were relatively satisfied with their Current QOL (Current QOL ≥ -1192) and who anticipated losses in taking early retirement. These were referred to as the 'Core' group. A second group included 30 individuals who were relatively satisfied with their Current QOL (Current QOL ≥ -1192) and who anticipated gains in taking early retirement. These were referred to as the 'Flexible' group. The third included 10 individuals who were not very satisfied with their quality of life (Current QOL < -1192) and who anticipated losses in opting for early retirement. These were referred to as the 'Trapped' group. The last group was comprised of 48 individuals who were not very satisfied with their quality of life (Current QOL < -1192) and who anticipated gains in opting for early retirement. This last group was called the 'Target' group as they were considered to be the most likely candidates for early retirement. They represented 41% of the subsample and 62% of those who anticipated gains in QOL.

Quality of Life and Early Retirement

This study was undertaken with the prime purpose of exploring the relationship between quality of life and interest in early retirement. It was hypothesized that those

individuals who anticipated gains in their quality of life ('Gain' group) would be more likely to indicate an interest in accepting an early retirement incentive than those who did not ('Loss' group). It was further hypothesized that those who anticipated gains and who also were experiencing relatively low levels of satisfaction with their Current QOL ('Target' group) would be even more likely to indicate an interest in early retirement. In this section, data on faculty attitudes to early retirement are noted first, and then the results of the tests of the two hypotheses are reported. As noted earlier, the first of these hypotheses involved dividing the subsample ($n = 116$) into two groups ('Gain' and 'Loss'). The second involved dividing the subsample ($n = 116$) into four groups ('Core', 'Flexible', 'Trapped', and 'Target').

Faculty Attitudes to Early Retirement

Data regarding participants' attitudes to the timing of retirement and interest in early retirement were obtained in two different ways. One item in the second section of the Questionnaire asked participants to indicate when they intended to retire. Because an early retirement incentive program was in place at Carleton University when the survey was conducted, this section also contained an item related to eligibility for this program and the level of interest in the program. Another item, which appeared in the third section of the Questionnaire, asked them whether they would retire before 65, if they were offered an adequate financial incentive. Participants were also asked to provide their views about the management of early retirement programs. This section includes a brief summary of these attitudes.

Fifty-four percent of the participants ($n = 149$) reported that they intended to work

until at least sixty-five, with more than half of these reporting that they intended to work beyond 65. Forty-one percent intended to retire between 55 and 64, with 5% intending to retire before age 55. Table 13 summarizes the responses on the basis of age, gender and rank. The results of chi-square analyses indicated that both gender and rank were related to retirement intention. Women were more likely than men to indicate an interest in retiring early ($\chi^2 \{1, n = 149\} = 4.93, p < .05$) and individuals in the lower ranks of academia (assistant professors, instructors, lecturers) were more inclined to do so than professors or associate professors ($\chi^2 \{1, n = 147\} = 5.80, p < .05$).

Sixty-two percent indicated that they would retire before 65, if they were offered an adequate financial incentive, whereas 38% indicated they would not. Table 14 summarizes the results on the basis of age, gender and rank. Chi-square analyses did not identify any relationship between interest in an early retirement incentive and these three variables.

Less than half the participants (42%) trusted management to develop and administer a fair voluntary separation or early retirement program. About 40% of the participants believed that individuals who were not liked by management would experience pressure to accept voluntary separation or early retirement. Approximately one third of the participants reported that they were eligible for Carleton's special early retirement program; only 6% of these indicated that they planned to accept it.

Relationship between Quality of Life and Early Retirement

The main hypothesis of the study was that those who anticipated gains in satisfaction with their quality of life after taking early retirement would be more likely to

indicate an interest in early retirement than those who anticipated a decline. The hypothesis was tested using a number of different statistical tools. First of all, the two variables were tested using Pearson chi-square analysis, with $\alpha = .05$. The results were significant, with $\chi^2 (1, n = 111) = 9.75, p < .01$, suggesting that a relationship did exist between the two variables. Of those who expected to improve their quality of life after early retirement, 75% either agreed or strongly agreed that they were interested in opting for early retirement whereas only 44% of those who expected a decline in their quality of life indicated an interest in opting for an early retirement incentive. The relationship was also tested using regression analysis, with $\alpha = .05$. The relationship between anticipated gain or loss in quality of life and early retirement was found to be significant and positive, with $t (109) = 2.564, p < .05$. In other words, the higher the QOL Index, the greater the interest in accepting an early retirement incentive. However, the correlation between the two variables was relatively weak, although significant, with $r (116) = .2385, p < .05$. The overall QOL Index scores only explained 5% of the variance in the dependent variable. The relationship between the dependent variable and the QOL Index scores for the six domains was then tested using multiple regression and was found to be significant, with $F (6, 104) = 4.61, p < .001$. The regression equation explained 21% of the variance in the dependent variable.

The relationship between the QOL Index and the retirement intention variable from the second section of the Questionnaire was also examined. The relationship was tested using Pearson chi-square analysis and the findings were significant, with $\chi^2 (1, n = 113) = 8.92, p < .01$. Of those who expected to improve their quality of life, 59%

indicated their intention to retire before 65. Of those who expected their quality of life to decline, only 29% indicated their intention to retire before 65. The relationship was also tested using regression analysis and it was found to be significant and negative, with $t(111) = -3.51, p < .001$. As the QOL Index increased, the lower the expected age of retirement was. The correlation between the QOL Indices and retirement intention was also significant but slightly stronger, with $r(113) = .32, p < .001$. With respect to this dependent variable, the regression equation explained 10% of the variance. The relationship between this variable and the QOL Index scores for the six domains was then tested using multiple regression. The results again were significant with $F(6, 106) = 3.37, p < .01$. The regression equation explained 16% of the variance in the dependent variable.

Four QOL Groups and Interest in Early Retirement

The second hypothesis of the study was that those who anticipated losses in satisfaction with quality of life and who were relatively dissatisfied with their Current QOL would be the most likely to express an interest in early retirement. As noted earlier, the subsample, ($n = 116$) was divided into four groups ('Core', 'Flexible', 'Trapped' and 'Target') using their QOL Index and their Current QOL scores to assign them to the groups.

Pearson chi-square analyses were carried out to investigate the relationship between these groups and the two variables related to early retirement (interest in an early retirement incentive and intended timing of retirement). The relationship between group membership and interest in opting for an early retirement incentive was found to be significant, with $\chi^2(3, n = 111) = 11.61, p < .01$. Eighty percent of the 'Target' group

agreed or strongly agreed that they would be interested in early retirement if they were offered an adequate financial incentive, whereas 65% of the 'Flexible' group did, 46% of the 'Core' group did and 40% of the 'Trapped' group did. When the relationship between the groups and the retirement intention variable was explored, it was found to be significant as well, with $\chi^2 (3, n = 113) = 13.39, p < .01$. Sixty-eight percent of the 'Target' group indicated that they intended to retire before 65, whereas 43% of the 'Flexible' group did, 30% of the 'Trapped' group did and 29% of the 'Core' group did.

On the basis of these results, two further sets of analyses were carried out. First, the characteristics of the 'Target' group were compared to those of the other three groups combined. The groups were combined because of the relatively small number of individuals in each of the other three groups. The 'Trapped' group, in particular, had only 10 members. Eight variables were investigated to determine whether or not there were any differences between those in the 'Target' group versus those in the combined group. These included two demographic variables and six structural variables related to work. Table 15 provides a summary of the results.

One conclusion that had emerged from the literature review was that attempting to predict group membership on the basis of such demographic and structural variables might not be the optimum approach. Although the studies by Daniels and Daniels (1991) and by Monahan and Greene (1987) did use this approach and both did find that some of these characteristics were significant, the findings taken together did not lead to obvious hypotheses about what would be found in this study. Therefore, the selection of variables for investigation here was influenced by the variables of interest to these researchers, but

the a priori expectation was that significant relationships would not be found. Of the eight variables investigated, three were found to be predictors of group membership--gender, age and years of service. Sixty-two percent of the women were in the 'Target' group whereas only 34% of the men were. The mean age and years of service were both lower for those in the 'Target' group.

The second set of analyses carried out were based on the view that a more appropriate and potentially useful approach to studying the question of who will leave and who will stay is the QOL approach. As already noted, it involves the view that if anticipated gain or loss in quality of life is a reasonable predictor of interest in early retirement, then the QOL Index can be used and should be used to predict group membership. Furthermore, once group membership has been predicted, the more interesting analyses to perform are those that provide insight into why individuals with different characteristics choose to leave. This latter point essentially represents the approach taken by Kellams and Chronister (1988) and involves an exploration of how the subjective variables have influenced different kinds of individuals to make the same decision.

Unfortunately, the sample size of the 'Target' group ($n = 48$) meant that further analyses on the basis of subgroups were somewhat limited. Also, full exploration of the reasons for membership within the 'Target' group was not within the scope of this study. However, a decision was taken to investigate the value of this approach using one particular variable. Again, gender was the variable selected. The previous analysis related to differences between men and women on assignment of weights to the domains,

suggested that differences in motivation might be found between the two. It was also selected for practical reasons; the sample size of the target group was 48 and the breakdown by gender insured that a reasonable number of participants were in the two groups.

The means for men and women in the 'Target' group were compared for Current QOL, Anticipated QOL, and the QOL Index using t-tests for independent samples. The results are summarized in Table 16. Some evidence was found to support the view that women and men were motivated differently in arriving at the conclusion that they would be better off by taking early retirement. Four significant differences were found. Women in the 'Target' group reported much lower levels of current satisfaction with their social lives than did the men. When the means for Current QOL were compared, women reported higher levels of dissatisfaction overall than did the men. In relation to Anticipated QOL, there was no evidence to suggest that men and women differed on any of the six domains. However, when the QOL Index means were compared, women anticipated much larger gains in satisfaction with social life, in particular, and in satisfaction with their quality of life overall than did the men.

Discussion

There are three issues to address in discussing the results of this study. The first involves the representativeness of the sample and, hence, the generalizability of the results. The fact that so few individuals volunteered to participate, when the total population at Carleton University was polled, necessitates this discussion. The second involves whether or not the quality of life approach is a sound way of conceptualizing satisfaction with

quality of life in the context of early retirement, and whether the QOL Inventory is an appropriate measurement instrument. The decision to create a new measurement instrument should never be made lightly. However, as noted in the introduction, the review of the literature on retirement and quality of life suggested that such an undertaking was justified. Because this was the first empirical study to use this new instrument, it was important to provide at least a preliminary evaluation of its capacity to do what it was designed to do. This evaluation was essential in determining whether the results of this study have any value, and whether it is worth developing the quality of life approach further.

The third issue involves whether or not the difference between satisfaction with quality of life now and anticipated quality of life after early retirement (QOL Index), as measured by this instrument, can help to predict which faculty will leave and which faculty will stay if early retirement incentives are offered. In other words, do the results of this study provide convincing evidence about the relationship between satisfaction with quality of life and faculty interest in early retirement? Part of this discussion involves whether or not the quality of life approach is of potential value to individuals and organizations in the context of early retirement incentive programs.

Representativeness of the Sample

Because age data were not available for Carleton University faculty, it was not possible to target faculty who were over some minimum age, such as 50 or 55. The Questionnaire was, therefore, sent to all faculty. The age distribution at Carleton is not known but a recent study involving nine universities in Canada noted that about half the

faculty were over 50 (Renner & Mwenifembu, 1995). It has been assumed, therefore, that probably about half of the faculty who received the Questionnaire at Carleton were under the age of 50. If this was the case, then many of those who received the Questionnaire may have felt that a survey related to early retirement was of no relevance or benefit to them and they, therefore, chose not to participate. Also, the early retirement incentive program being offered at Carleton University at the time the survey was conducted was not well-received, and this too may have led to fewer faculty responding.

However, many characteristics of the sample did reflect the overall population of faculty at Carleton, and, in some cases, faculty in Canada and the United States. The gender breakdown was very similar to that for the university as a whole; as of 1993-94 the proportion of males to females was 3 to 1 (Zaluska, 1994). The median age of the sample was 51. Although up-to-date statistics were not available for faculty more generally, this median age is probably similar to that of faculty in Canada and the United States given that the median age was 48 in 1988 for Canadian faculty and 45 in 1990 for American faculty. These statistics suggest that the sample was somewhat representative of the broader population in North America and of the more specific population at Carleton University. The breakdown of the sample by faculty and rank was also similar to Carleton's faculty composition as of 1993/94 (Zaluska, 1994). The faculty breakdown for the university was as follows: 30% were in Arts, 14% in Engineering, 19% in Science, and 36% in Social Sciences; in this study it was 33% in Arts, 12% in Engineering, 12% in Science, and 43% Social Sciences. The breakdown by rank was as follows: 38% full professors; 38% associate professors; 18% assistant professors; and 6% others (Zaluska, 1994); in

this study it was: 40% full professors; 35% associate professors; 20% assistant professors; and 5% others.

The one variable that did not appear to reflect the broader population was age. The bimodal distribution was not anticipated. In fact, it was surprising to find so many younger faculty participating in the study. The reasons for this are not clear. It may be that faculty in the younger age groups are focusing on the issue of either early retirement or voluntary separation more than normal because of the level of uncertainty about budgets that pervades the work environment. It may be, as Carnegie has suggested, that these faculty are suffering from a form of "malaise" and sought out an opportunity to express this through the Questionnaire. Because age data for the faculty at Carleton were not available, it was not possible to determine how this distribution differed from that for the university as a whole.

The results related to participants' attitudes to work were compared to the results of the faculty surveys reported in the introduction. For example, the survey conducted by Astin et al (1991) reported that about 70% of those surveyed were satisfied with their work and this compared favourably with the sample, with 75% of the sample indicating they were satisfied with their work. In the 1989 Carnegie survey, 20% reported that they felt trapped in a job with limited opportunities for advancement and 16% of the sample did. Just over 30% reported that their jobs were a source of personal strain in the 1995 Carnegie survey, and 31% of this sample did. These comparisons suggest that, in terms of work satisfaction, feeling trapped with limited opportunities for advancement, and personal strain related to work, the participants in the sample were similar to the U. S.

faculty surveyed. However, on a number of the other variables related to work, the results were quite different. For example, 39% of those surveyed by Carnegie in 1987 indicated they thought their institution was not managed effectively whereas 53% of the sample thought this. Thirty-seven percent of the Carnegie sample felt their careers were not progressing as they wished, whereas only 26% of the Carleton sample thought this. This comparison of the sample with the results of much larger surveys of faculty in Canada and the United States did not provide any conclusive evidence one way or the other. It is certainly not possible to conclude that the sample is representative of the larger faculty population. However, the fact that some of the findings are similar provides some indication that the sample possesses some characteristics of the broader population.

Although the return rate was low, it did appear that the sample was relatively representative of the population at Carleton University and also somewhat representative of the population of faculty in Canada and the United States, at least on some demographic, structural and subjective variables. On the basis of these comparisons, it was felt that the sample was sufficiently similar to faculty at Carleton University and in general to justify cautious generalizations beyond the sample itself.

Elaboration of the Design of the QOL Inventory

The QOL Inventory was designed to translate a very complex set of subjective variables making up quality of life into a simple numerical framework, and to do so for the current quality of life of individuals and for their anticipated quality of life. This framework involved capturing numerical data on the various components that comprise satisfaction with quality of life. The first question is whether or not individuals were able

to identify with this framework and respond accordingly. The second question is whether or not the instrument is operationally sound.

Reaction to the Quality of Life Framework.

Two factors suggest, either directly or indirectly, that some individuals found it difficult to understand or relate to the quality of life approach. One of these was the relatively low return rate. A rate of 21% was disappointing and it is certainly possible that some individuals, in reviewing the Questionnaire, decided that the QOL Inventory looked too difficult or confusing to fill out and as a result decided not to participate. It was not possible to tell from those who declined to participate whether this was a factor or not because individuals were not asked to indicate why they did not wish to participate.

A second factor of concern was the incompleteness of some of the Questionnaires. Twenty-five percent of the total sample ($N = 155$) did not fully complete the QOL Inventory. It does appear that the QOL Inventory was difficult for some individuals to understand or to relate to, and some of the feedback suggests that more precise instructions and more precise wording in the QOL Inventory might have resulted in fewer incomplete Inventories.

The scores of the individuals who did fully complete the QOL Inventory were also reviewed. These individuals seemed to be able to differentiate between the actual state and goal components of satisfaction, as they tended to rate their current states lower than their goals and there was greater variability in actual states compared to goals. On the other hand, the findings related to use of the importance of domains as an element in the quality of life approach suggest that it may have been an unnecessary and, for some, a

confusing component to include. The very high correlations found between the gap scores (differences between states and goals) and the weighted QOL scores suggest that little was gained by requiring participants to indicate how important each domain was to them. Inclusion of some measure of the importance of the domains certainly has some support in the theoretical literature (Campbell et al, 1976), but this view was not supported by this finding. One possible explanation for this may be that individuals build into their goals an element related to the importance of each domain. It has been noted, however, that there may be value in obtaining some measure of the importance of the domains because it can provide important information about subgroups. The differences that were found between men and women with respect to the assignment of weights provides an example of the potential value in obtaining this information.

Properties of the QOL Inventory.

There were a number of limitations to evaluating the properties of the QOL Inventory. Because no similar measurement tools were identified during the literature review, it was not possible to assess the results of this study against the results of other studies using similar instruments, nor was it possible to get repeated measure or split-half scores from the subjects. The properties of the instrument have therefore been viewed from a validity perspective only.

Every effort was made to ensure that the QOL Inventory had content validity. In fact, one of the reasons for dealing only with the higher order domains that comprise quality of life was to provide each individual with the flexibility to take into account whatever lower order variables were important to him or her. From the numerous studies

on quality of life and retirement, it did appear that almost all variables that individuals would consider could be accounted for within one of the six domains used in the QOL Inventory. It is not known if the QOL Inventory has face validity as participants were not asked to provide any overall comments on how they viewed the instrument. The only indirect evidence of this was that 28 individuals did ask for personal feedback and this suggests that these individuals did assign some face validity to the quality of life framework. It was not possible to judge whether the QOL Inventory has predictive validity since the study was not carried out in conjunction with an actual early retirement program. The studies by Daniels and Daniels (1991) and Monahan and Greene (1987) had this distinct advantage.

The form of validity for which there is some evidence is construct validity. For example, the modest, but significant, correlation between the scores for work satisfaction as measured by the QOL Inventory and the scores on the statement related to overall satisfaction with work in the third section of the Questionnaire provides some support for construct validity, at least in relation to work. However, the low level of the correlation was disappointing and therefore does not represent strong support for the validity of the QOL Work scores. As a measure of whether faculty are satisfied with their work or not, it does appear to have some validity in relation to what is known about faculty in general. Studies (Astin et al., 1991) have shown that most faculty are relatively satisfied with their working lives. This study found that work was, on average, the domain of greatest satisfaction for participants.

A number of other findings provide support for the construct validity of the quality

of life approach and the QOL Inventory. The finding that those who anticipated gains in quality of life were more likely to express their interest in an early retirement incentive was very similar to the findings of Daniels and Daniels (1991). They found that over half of those individuals who took early retirement had anticipated an improvement in their quality of life, whereas only 20% of those who did not anticipated such an improvement. In the Prothero and Beach (1984) study, which was the closest in design to this study, they found, as was found in this study, that those who had positive expectations about retirement, were more likely to express an intention to retire than those who had negative expectations. Other studies (Kellams and Chronister, 1988; Dorfman, 1985) have shown that a high percentage of faculty continue to work after taking early retirement; this study found that about 70% of the participants plan to work after taking early retirement. The lowering of the goals for some domains after early retirement is also consistent with studies related to life satisfaction and retirement (Schnore, 1985). The high correlation found between current and anticipated goals and the lower correlation found between current states and anticipated states also reflects psychological theory. The fact that the distributions for both Current QOL and Anticipated QOL were negatively skewed reflects what is known about measures of satisfaction in general and the fact that the QOL domains were generally correlated is consistent with the findings of Campbell et al. (1976). The study found that faculty have concerns for potential losses related to finances; this too is consistent with the findings of other studies related to early retirement (eg Lozier & Dooris, 1991; Monahan & Greene, 1987).

This preliminary investigation of the psychometric properties of the QOL

Inventory provides some indications that the quality of life approach as operationalized in the QOL Inventory does measure satisfaction with quality of life. The evidence suggests, however, that changes are needed in the design of the QOL Inventory. One example of this involves the possibility of dropping the requirement for individuals to identify the importance of the domains. Another example is the need to provide clearer instructions. Because the QOL Inventory could not be tested for reliability and does not meet all of the tests for validity, it is not possible to conclude that the Inventory is reliable and valid. However, a few encouraging signs have been noted and these provide an incentive to develop the concept and its operationalization further.

Usefulness of the QOL Inventory

As noted already, the QOL Inventory component of the overall Questionnaire was designed to test the hypothesis that individuals who anticipate gains in satisfaction with quality of life after early retirement will be more likely to indicate an interest in early retirement than those who anticipate losses. In more practical terms, it was designed as a tool that could be used by individuals contemplating the possibility of taking early retirement and by organizations who want to determine how many individuals are likely to be interested in accepting an early retirement incentive. It was also designed to provide organizations with information about four very different groups of employees. The results of this study have been reviewed to determine if they support the major hypotheses about faculty and early retirement and if they meet these more practical objectives.

The QOL Index as a Predictor of Interest in Early Retirement.

The results provide evidence to support the hypothesis that faculty who anticipate

gains in quality of life after accepting an adequate early retirement incentive are more likely to leave than those who anticipate losses. However, the results are somewhat disappointing in that the QOL Index itself was not a strong predictor of interest in early retirement and only explained a small portion of the variability in the two dependent variables--interest in an early retirement incentive and intended timing of retirement. The results involving the multiple regression of the six domains on the dependent variables were more encouraging, explaining more of the variance in both cases. The results, however, fall short of expectations in terms of the extent to which the QOL Index can predict interest in early retirement.

There are several reasons why this may have occurred. It may be that the role of subjective variables as measured by the QOL Inventory in the early retirement decision-making process is not as pervasive as expected in influencing the individual's level of interest in early retirement. Hwalek, Firestone, and Hoffman (1982), for example, found that social pressures had an impact on retirement intentions, demonstrating that a force external to the individual could be a predictor of interest in retirement. Because the QOL Inventory did not flag a long list of second order variables, it may be that individuals did not consider all of the relevant variables they would actually consider if they had been making a real decision about early retirement. There was also no way to judge how long individuals took to complete the QOL Inventory; in some cases, participants may have quickly filled it out without thinking much about it or without talking to others about it. If faced with a real life decision, it is unlikely that individuals would approach the decision in this fashion. In the same vein, the younger participants, of which there were many, may

have responded without having ever considered the issue before. The older participants in the study may have been thinking about the issue before they filled out the survey and have provided more well-thought out and considered responses. Another possibility is that using 0 as the cut-off point to define anticipated gain or loss in satisfaction with quality of life may not have been appropriate. It may be that individuals must anticipate significant gains before they will even consider such a dramatic change in their lives as leaving their profession. Campbell et al. (1976) touched on this issue when they suggested that there may be a threshold of satisfaction that must be achieved.

The results involving the relationship between group membership and interest in the two early retirement variables are somewhat more encouraging. There is evidence to suggest that faculty who anticipate gains in satisfaction with quality of life and who are experiencing relatively low levels of satisfaction with their Current QOL overall ('Target' group) are more likely to consider leaving than those who anticipate gains, but report higher levels of satisfaction with Current QOL ('Flexible' group), or individuals who anticipate losses in quality of life ('Core' and 'Trapped' groups). These results suggest, at least, that further investigations using the four quadrants would be potentially worthwhile. For the sample used in the study, it was clear that age, gender and years of service did differentiate those in the 'Target' group from those in the other three groups. This does not necessarily mean, however, that these are general predictors of interest in early retirement. As noted in the introduction, these may be very specific to the institutional setting within which the study took place.

The Practical Value of the Quality of Life Approach.

As noted in the introduction, one of the objectives in developing the quality of life approach and designing the QOL Inventory was to produce a tool that could be used within organizations to assist individuals in assessing whether or not their lives would be enhanced by taking early retirement, and also to assist managers in implementing early retirement incentive programs.

In the first instance, it is difficult to judge whether the quality of life approach was useful to those individuals who participated in the study. The Questionnaire did not ask participants for feedback on how useful they found the QOL Inventory and, as a result, it is difficult to know whether or not it was of use to those who did. It was probably not that useful to the 39 individuals who were unable to fully complete the Inventory. Even if feedback had been sought, two constraints might have inhibited positive comments on the usefulness of the quality of life approach. First, the study was not conducted in conjunction with an actual early retirement program, and therefore, the hypothetical context might have limited individuals' assessment of its usefulness. Also, the fact that it could not be limited to individuals who were eligible for early retirement may have limited its perceived usefulness. However, the fact that 28 individuals did specifically ask for personal feedback suggests that they, at least, felt the results could have potential value to them.

In spite of the fact that the results of this study do not demonstrate definitively that the quality of life approach can effectively predict interest in early retirement, the QOL Inventory did produce a number of findings of potential interest to institutions

contemplating early retirement programs. Perhaps the most useful feature of the quality of life approach is that it permits the assignment of all individuals in an organization to membership in one of four groups on the basis of their QOL Index (anticipated gain or loss in satisfaction with quality of life) and their Current QOL (current level of satisfaction with quality of life). It provides organizations with an indication of how many individuals fall into each group and which organizational units these individuals are from. It permits the identification of those variables that are related to group membership. As noted earlier, there is no doubt that organizations would like to know the characteristics of these individuals, especially those who are most likely to leave. They probably want to know if they will lose their most productive employees, if some departments will be more affected than others, if they will lose ground on their employment equity objectives and so on. The question has already been raised with regard to whether there is any value in attempting to predict who these individuals will be on the basis of demographic and structural variables. It does make sense to compute descriptive statistics for demographic and structural variables for each specific organizational context. If some variables are found to be predictors of group membership, such as was found in this study, then it may be of significance in that context. For Carleton University it may be that gender is a predictor of group membership. However, caution would certainly be advisable in generalizing beyond the Carleton context. As suggested earlier, it may be more valuable to examine those who fall into the 'Target' group with a view to understanding whether individuals with different characteristics are there for different reasons. This was the approach taken by Kellams and Chronister (1987). In this study, the results did demonstrate that the men

and women in the 'Target' group were somewhat different in terms of their assessment of the subjective variables involved in reaching conclusions about early retirement.

Differences related to social life were particularly noteworthy.

To the extent that the findings do not provide strong evidence of a relationship between quality of life and early retirement, it might be tempting to decide that the quality of life approach and the QOL Inventory do not contribute to a better understanding of faculty interest in early retirement. This does not appear to be an appropriate conclusion, however, because the QOL Inventory has revealed interesting and potentially useful findings related to the sample itself. These findings could be useful for the institution from which the sample was drawn. The findings do suggest that, of the 21% sampled, most report higher levels of satisfaction for work than any other domain; they also reveal that most of the sample have high levels of dissatisfaction with their financial situations and are very concerned about losing ground financially after early retirement. On the other hand, the findings also reveal that many of the participants believe that other domains of their lives, such as family life, would be enhanced by leaving. Interestingly, those who expected to work beyond early retirement, anticipated being even more satisfied in the work domain. And even though participants expressed relatively high levels of satisfaction with work, over two thirds anticipated gains in satisfaction with quality of life if they were to take early retirement. Findings such as these do not tell us that much about the rest of the faculty at Carleton University, but they do provide an indication of how some faculty view their lives from a quality of life perspective. This kind of information, coupled with other sources of information about the faculty at Carleton University, would be potentially

helpful in understanding faculty attitudes to early retirement at this university.

Conclusions

This study had two purposes as identified in the introduction. The first purpose was to test whether there was a relationship between satisfaction with quality of life and interest in early retirement. The second purpose was to evaluate the conceptual basis for the quality of life approach used in this study and its operationalization in the form of the QOL Inventory. In the former case, two specific hypotheses were identified. Because of the comprehensive nature of the quality of life approach, it was anticipated that the QOL Index would effectively reflect an individual's ultimate conclusion about whether or not to take early retirement and thus predict an individual's level of interest in doing so. It was also expected that, by knowing an individual's QOL Index and by taking into account an individual's current level of satisfaction with their quality of life, it would be possible to identify the group of individuals most likely to leave.

In general, the results of this first empirical test of the quality of life approach and its operationalization are somewhat encouraging. They do suggest that the approach has some conceptual merit, that the QOL Inventory does possess some of the psychometric characteristics essential to such an instrument, and that how satisfied faculty are and expect to be with their quality of life is related to their interest in early retirement. However, this study and its findings represent only a first step in using the quality of life approach to better understand faculty interest in early retirement. This first step has been, given the scope of the study, a relatively superficial one. The Questionnaire and the QOL Inventory produced a very large amount of data. More work is needed to investigate in

greater detail the data generated by the QOL Inventory, to refine the conceptual basis for the approach and to revise the quality of life instrument used in the study.

Current trends affecting higher education, as noted in the introduction, will have an impact on when some faculty retire and on the circumstances under which these faculty retire. The pressures on higher education to adapt to the social and economic realities of the 1990s are likely to result in organizational strategies that include early retirement incentive programs. To the extent that this is the case, there is an incentive to pursue the quality of life approach in order to better understand faculty interest in early retirement.

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Table 1

Independent Variables and their Categorization for Purposes of Analysis

Variable	Maximum No.	Reduced	Categories
<u>Demographic Variables</u>			
Age	--	3	<55; 55-64; ≥65
Gender	2	--	Male; female
Marital Status	3	2	Partner; no partner
Family	4	2	Dependents; No dependents
Income	4	2	≤\$60,000; >\$60,000
Spousal Income	4	2	≤\$40,000, >\$40,000
Education	4	2	PhD; no PhD
<u>Structural Variables</u>			
Faculty Affiliation	4	--	same
Rank	4	2	Professor/Assoc. Professor; Instructor/Lecturer/Other
Status	3	2	Tenured; not tenured
Years of Service at Carleton	--	2	1-15; 16-40
No. of Graduate Students	--	3	0; 1-4; ≥ 5
Interest	3	--	Research; Both; Teaching
Contracts/Grants	2	--	Yes; No
No. of Publications	--	2	0-9; ≥ 10
<u>Subjective Variables</u>			
Retirement Intention	5	2	<65; ≥65
Section III (all variables)	4	2	Disagree; Agree

Table 2

Chi-Square Statistics for Comparison of Incomplete versus Complete Cases

Independent Variables	<u>n</u>	<u>X²</u>	<u>df</u>
<u>Demographic Variables</u>			
Age	155	1.06	2
Gender	155	1.03	1
Marital Status	155	.09	1
Children	155	.002	1
Salary	152	.04	1
Spousal Salary	106	1.32	1
Education	155	3.02	1
<u>Structural Variables</u>			
Faculty Affiliation	155	4.25	3
Rank	153	4.26	1
Status	154	.01	1
Years of Service at Carleton	151	.11	1
No. of Graduate Students	155	2.42	1
Interest	153	2.55	2
Grants/Contracts	154	.54	1
No. of Publications	139	.28	1
<u>Subjective Variables</u>			
Retirement Intention	149	1.05	1
Trust Management	142	.10	1
Pressure to Early Retire	142	.003	1
Effective Management	145	.001	1
Enthusiasm	141	.001	1
Trapped	148	1.62	1
Personal Strain	149	.34	1
Recognition	143	.11	1
Overall Job Satisfaction	147	.01	1
Career Progress	149	1.59	1
Interest in Early Retirement	145	1.57	1
Liberal vs Specialized	134	.54	1
Student Preparedness	141	.02	1

Table 3

Comparison of Current Actual State, Goal and Weight Means for Incomplete versus Complete Cases

Variable	<u>t-value</u>	<u>df</u>	<u>SE Diff</u>	<u>n</u>
Mean Current State	-.35	147	3.08	149
Current State Family	-.39	146	4.90	148
Current State Social	-.19	147	5.19	149
Current State Health	-.57	147	4.16	149
Current State Finances	-.76	146	4.53	148
Current State Emotional	.69	146	4.00	148
Current State Work	-.24	147	3.57	149
Mean Current Goal	.21	145	2.14	147
Current Goal Family	.47	144	3.66	146
Current Goal Social	-.38	145	3.95	147
Current Goal Health	-.47	145	2.86	147
Current Goal Finances	-.38	145	2.60	147
Current Goal Emotional	1.78	143	2.60	145
Current Goal Work	.56	145	2.48	147
Mean Current Weight	-1.67	142	3.41	144
Current Weight Family	-1.35	140	4.77	142
Current Weight Social	-1.16	139	4.66	141
Current Weight Health	-1.53	142	4.04	144
Current Weight Finances	-1.65	142	3.96	144
Current Weight Emotional	-.47	140	4.72	142
Current Weight Work	-1.43	141	3.89	143

Table 4

Means and Standard Deviations for Current QOL and Anticipated QOL by Domain (n = 116)

Domain	Current QOL		Anticipated QOL	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Family	-1300	1547	-553	1134
Social Life	-1327	1424	-551	1235
Health	-1315	1211	-1133	1175
Finances	-1464	1547	-2057	1855
Emotional Life	-1107	1473	-1211	1543
Work	-1027	1179	-678	1584
QOL Overall	-1256	852	-1030	909

Table 5

Intercorrelations Between Current QOL Domain Scores (n = 116)

Domain	Family	Social	Health	Finances	Emotional	Work
Family	--	.53***	.18*	.10	.40***	.14
Social Life		--	.13	.28**	.34***	.26
Health			--	.10	.17	.12
Finances				--	.26**	.20*
Emotional Life					--	.37***
Work						--

*p < .05

**p < .01

***p < .001

Table 6

Intercorrelations Between Anticipated QOL Domain Scores (n = 116)

Domains	Family	Social	Health	Finances	Emotional	Work
Family	--	.56***	.07	.0003	.18*	.26**
Social		--	-.01	.23*	.46***	.40
Health			--	.07	.08	.02
Finances				--	.65***	.41***
Emotional					--	.54***
Work						--

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 7

Correlations Between Current and Anticipated States, Goals, Weights, and QOL Scores

	States	Goals	Weights	QOL
Domains	C/A	C/A	C/A	C/A
Overall	.64	.88	.95	.45
Family	.61	.88	.96	.48
Social Life	.72	.90	.91	.50
Health	.70	.82	.92	.59
Finances	.48	.73	.86	.45
Emotional Life	.51	.80	.93	.37
Work	.30	.46	.71	.21

Note. For all correlations, $n = 116$ except for Work domain. The size of the sample for Work States, Goals and Weights was 81. All correlations were significant with $p < .001$, except for Work States, $p < .01$ and QOL Work Scores, $p < .05$

Table 8

Correlations Between Current Gap/Current QOL Scores and Anticipated Gap/Anticipated QOL Scores

Domain	Current Gap/QOL Scores		Anticipated Gap/QOL Scores	
	r	n	r	n
Family	.97	116	.98	116
Social Life	.94	116	.96	116
Health	.89	116	.92	116
Finances	.92	116	.93	116
Emotional Life	.98	116	.98	116
Work	.97	116	.96	81
Overall	.93	116	.95	116

p < .001 in all cases

2 of / de 2

PM-1 3 1/2"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

Table 9

Comparison of Mean Weights for Each Domain and Overall QOL by Gender

Variable	t-value	df	SE of diff
<u>Current Mean Weights</u>			
Overall	-2.55*	114	3.01
Family	-2.50*	80.1	3.45
Social Life	-2.17*	114	4.37
Health	-1.49	114	3.58
Finances	-1.76	114	3.88
Emotional Life	-2.60*	114	4.06
Work	-1.46	114	3.53
<u>Anticipated Mean Weights</u>			
Overall	-2.69**	114	2.95
Family	-2.16*	114	4.24
Social Life	-2.59*	114	4.36
Health	-1.35	114	3.49
Finances	-1.64	114	3.80
Emotional Life	-2.80**	114	3.89
Work	-.55	79	6.01

Note: The degrees of freedom for Family are lower because the assumption of equal variances was violated. The degrees of freedom for Anticipated Mean Weight Work was lower because only 70% of the subsample ($n=116$) reported such scores. In all other cases, $n = 116$.

* $p < .05$

** $p < .01$

Table 10

Comparison of QOL Index Means for the 'Gain' Group versus the 'Loss' Group (n = 116)

Domain	'Gain' Group		'Loss' Group	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Family	1094	1404	36	1123
Social Life	1158	1195	-10	1269
Health	402	1032	-272	1047
Finances	25	1550	-1864	1634
Emotional Life	507	1325	-1356	1635
Work	1905	1150	-996	2043
Overall	699	593	-744	700

Table 11

Comparison of Current QOL Means for the 'Gain' Group versus the 'Loss' Group (n = 116)

Domain	Gain		Loss		F(1, 114)
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Family	-1552	1609	-784	1264	6.64*
Social	-1594	1354	-778	1423	8.96*
Health	-1457	1250	-1021	1082	3.39
Finances	-1653	1604	-1075	1363	3.65
Emotional	-1321	1515	-667	1292	5.23*
Work	-1226	1196	-619	1045	7.13**

*p < .01

**p < .001

Table 12

Comparison of Anticipated QOL Means for the 'Gain' Group versus the 'Loss' Group (n = 116)

Domain	'Gain' Group		'Loss' Group		F(1,114)
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Family	-458	930	- 748	1474	1.68
Social	-435	774	- 788	1846	2.11
Health	-1055	1069	-1293	1369	1.05
Finances	-1628	1587	-2939	2067	14.25*
Emotional	-815	963	-2023	2112	17.98*
Work	-221	728	-1615	2314	23.70*

*p < .001

Table 13

Reported Timing of Retirement Intention as Percentage of Sample Overall and by Age, Gender and Rank

	<u>n</u>	< 55	55-64	≥ 65
Total	149	5%	41%	54%
<u>Age</u>	149			
Under 55		8	46	46
55-64			36	64
≥ 65				100
<u>Gender</u>	149			
Male		6	35	59
Female		3	59	38
<u>Rank</u>	147			
Professor			35	65
Associate Professor		8	44	48
Assistant Professor, Instructor, Lecturer		11	48	41

Table 14

Reported Interest in Accepting an Early Retirement Incentive as a Percentage of the Sample Overall and by Age, Gender and Rank

	<u>n</u>	Strongly Disagree	Disagree	Agree	Strongly Agree
All Participants	145	15%	23%	43%	19%
<u>Age</u>	145				
Under 55		15	23	45	17
55-64		13	20	44	23
65+		33	33	17	17
<u>Gender</u>	145				
Males		15	22	41	22
Females		15	26	49	10
<u>Rank</u>	143				
Professor		15	20	47	18
Associate Professor		14	27	44	15
Assistant Professor, Instructor, Lecturer		14	22	39	25

Table 15

Comparison of Characteristics of 'Target' Group versus 'Others' Group

Variable	<u>t-value/X²</u>	<u>df</u>	<u>SE of Diff</u>	<u>n</u>
Age	2.57*	114	1.899	116
No. of Publications	.76	104	1.367	106
Years of Service	3.04*	110	1.976	112
Gender	6.8235**	1	--	116
Contracts/Grants	.0716	1	--	115
Interest	1.0258	2	--	115
Rank	1.4752	1	--	114
Tenure	2.4528	1	--	116

* $p < .05$ ** $p < .01$

Table 16

Comparison of Mean QOL Domain Scores for 'Target' Group by Gender (n = 48)

<u>Variable</u>	<u>t-value</u>	<u>df</u>	<u>SE of Diff</u>
<u>Current QOL</u>			
Family	1.07	46	518
Social Life	2.26*	46	409
Health	1.72	24.43	419
Finances	.94	46	504
Emotional Life	.06	46	508
Work	.17	46	391
Overall	2.58*	46	179
<u>Anticipated QOL</u>			
Family	-.88	46	331
Social Life	-.33	46	270
Health	.17	46	314
Finances	.53	46	505
Emotional Life	.52	46	315
Work	1.09	46	223
Overall	.30	23.01	195
<u>QOL Index</u>			
Family	-1.85	46	458
Social Life	-2.78**	46	364
Health	-2.01	46	331
Finances	-.32	24.76	634
Emotional Life	.27	46	484
Work	.47	46	375
Overall	-2.18*	46	185

Note: The degrees of freedom for Current QOL Health, Anticipated QOL Overall, and QOL Index Finances are lower because the assumption of equal variances was violated.

*p < .05

**p < .01

Figure Captions

Figure 1: Mean Current QOL, Anticipated QOL and difference

Figure 2: Mean Current State, Anticipated State and difference

Figure 3: Mean Current Goal, Anticipated State and difference

Figure 4: Mean Current Weight, Anticipated Weight and difference

Appendix A

QOL Questionnaire and Questionnaire Instructions

e-mail: erenner@ees.carleton.ca
March, 1995

Dear Colleague:

I am writing to request your participation in a survey of the faculty at Carleton University. Much has been written about the challenges facing higher education today. My research on higher education, which is supported by SSHRC, is intended to shed light on how universities can successfully adapt to these challenges.

Many universities, in response to fiscal restraints, have introduced special programs to encourage senior faculty to opt for early retirement through a voluntary separation program. The present survey seeks to increase our understanding of what motivates faculty to opt for early retirement.

Survey data have shown that many junior faculty also have an interest in voluntary separation and early retirement options. This survey, therefore, is being sent to all faculty. It should provide a framework within which you can evaluate whether opting for early retirement would improve your quality of life or not, whether this is in the future or in response to the recent early retirement program being implemented at Carleton.

Please check the appropriate box on the back of this letter to let me know whether or not you will participate; *it will ensure that you do not receive further reminders if you do not wish to participate.* The code numbers are solely for the administrative purpose of checking off returned questionnaires and to provide you with the type of feedback that you would prefer to receive in return for your participation. Your responses to the questionnaire will be kept absolutely confidential and anonymous.

Sincerely yours,

K. Edward Renner, PhD
Adjunct Research Professor

Feedback Options

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(Please check one option and return this page whether or not you choose to participate)

☐ I will participate and would like to receive **Confidential Personal** feedback.

Please enclose this letter with your completed questionnaire in the large envelope provided. No personal identification will be attached to your answers. A code number will be used to prepare a confidential feedback report which will be returned to you along with a statistical summary of the responses of the other participants. No record will be retained which will identify you with your questionnaire.

☐ I will participate and would like to receive **General Group** feedback.

Please enclose this letter in the separate letter-size envelope provided and return it and the completed questionnaire under separate cover. You will receive by return mail a form for analyzing your responses and a statistical summary of the responses of the other participants.

☐ I will participate but I do not wish to receive feedback.

Please enclose this letter in the separate letter-size envelope provided and return both it and the completed questionnaire under separate cover. You will not hear further from us.

☐ I do not wish to participate.

Please enclose this letter and the blank uncompleted questionnaire in the large envelope provided and return them. *We will not contact you further nor send you any follow-up letters requesting your cooperation.*

From:

In Addition

☐ Please send me information about the current research series on higher education.

☐ Please send me information about the "career alternatives cafeteria" and its availability for personal use.

INSTRUCTIONS FOR QUALITY OF LIFE QUESTIONNAIRE

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This questionnaire has three sections. The first section, called the Quality of Life (QOL) Inventory, requires an assessment of your quality of life now and your anticipated quality of life in the future. The second section requests background information, and the third section involves your work and your views regarding voluntary separation or early retirement.

In the first section, you will be asked to use the following 1% to 100% rating scale to evaluate six major factors related to your quality of life. For each of the six factors, you will first be asked to identify your **actual** level of satisfaction, your **goal**, and the **weight** or importance you give to that factor. You will then repeat this process for your anticipated quality of life should you opt for voluntary separation or early retirement.

The gap between your actual states and your goals, with the weighting of each factor taken into account, will provide an estimate of the quality of your life now and in the future. The difference between the two, your Quality of Life Index, will indicate whether your quality of life would improve or decline if you choose to participate in a voluntary separation or early retirement program.

Please refer to the following scale when making your ratings:

Satisfaction and Importance Scale:									
Completely Unsatisfied					Perfectly Satisfied				
	----		----		----		----		----
1%		50%				100%			
Not Important At All					Completely Important				

Please use the satisfaction scale to rate first your actual situation and then your goal; then use the importance scale to rate how important the factor is to you. You should ask yourself the following questions as you fill out the inventory:

Actual. How satisfied am I with this factor?

Goal. Realistically, what is my goal for this factor? (In some cases, your actual level of satisfaction may be higher than your goal.)

Weight. How important is this factor to me in terms of my overall quality of life?

A. Current Quality of Life

Please refer to the following scale when making your ratings:

Satisfaction and Importance Scale:									
Completely Unsatisfied					Perfectly Satisfied				
1%					100%				
Not Important At All					Completely Important				

Item	Actual	Goal	Weight
1. Family. The amount and quality of time that you spend with members of your family (including relatives and other persons whom you consider to be your family).			
2. Social. The frequency and quality of your leisure times, the frequency and quality of your interactions with friends, as well as the amount and quality of social support and acceptance provided by people around you (other than your family).			
3. Health. Your physical health, including your physical capacities, your nutritional health, the quantity and quality of your sleep, your level of pain and discomfort, and your intellectual functioning.			
4. Finances. Your overall financial situation, including disposable income and debt load, and your financial security.			
5. Emotional. Your personal/emotional well-being, including your self-esteem, morale, attitude toward aging, and your ability to share emotions.			
6. Work. The amount and type of work that you do, your level of effectiveness at work, your interactions with colleagues and superiors while at work, and your physical work environment.			

B. Anticipated Quality of Life After a Voluntary Separation or Early Retirement

Please refer to the following scale when making your ratings:

Satisfaction and Importance Scale:									
Completely Unsatisfied					Perfectly Satisfied				
1%		50%				100%			
Not Important At All					Completely Important				

Item	Actual	Goal	Weight
1. Family. The amount and quality of time that you anticipate spending with members of your family (including relatives and other persons whom you consider to be your family).			
2. Social. The anticipated frequency and quality of your leisure times, of your interactions with friends, as well as the amount and quality of social support and acceptance provided by people around you (other than your family).			
3. Health. Your anticipated physical health, including your physical capacities, your nutritional health, the quantity and quality of your sleep, your level of pain and discomfort, and your intellectual functioning.			
4. Finances. Your anticipated overall financial situation, including disposable income and debt load, and your financial security.			
5. Emotional. Your anticipated personal/emotional well-being, including your self-esteem, morale, attitude toward aging, and your ability to share emotions.			
6. Work. The anticipated amount and type of work (if any) you will do, your level of effectiveness at work, your interactions with colleagues and superiors while at work, and your physical work environment. (Leave blank if you do not anticipate working for pay after separation.)			

II BACKGROUND INFORMATION

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Because a wide range of people are participating, we would like you to provide us with some personal information so that averages can be computed for different groups of people. We will make these statistics available to participants who would like to compare their own scores with the averages of others.

- Your age in years: _____
- Your gender ☐ Male
 ☐ Female
- Your marital status: ☐ Married, re-married, or with a partner
 ☐ Divorced, separated
 ☐ Single
- Your family ☐ Have financially dependent children
 ☐ Have financially independent children
 ☐ Have both of the above
 ☐ Have no children
- Your salary range: ☐ \$40,000 or less
 ☐ \$40,001 to \$60,000
 ☐ \$60,001 to \$80,000
 ☐ \$80,000 or more
- Spousal income,
if applicable ☐ \$40,000 or less
 ☐ \$40,001 to \$60,000
 ☐ \$60,001 to \$80,000
 ☐ \$80,001 or more
- Your education ☐ PhD or Professional Degree
 ☐ Bachelors or Masters Degree
 ☐ Diploma/Some Post-secondary
 ☐ Grade 12 or less
- Retirement preference: ☐ Before age 55
 ☐ At age 55
 ☐ After 55 but before 65
 ☐ At 65
 ☐ Continue Working After 65

Faculty

- ☐ Arts
☐ Engineering
☐ Science, Mathematics and Computing Science
☐ Social Sciences
☐ Other

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Your organizational level:

- ☐ Administration
☐ Faculty
☐ Staff

Your rank

- ☐ Professor
☐ Associate Professor
☐ Assistant Professor
☐ Instructor or Lecturer

Your tenure status:

- ☐ Tenured
☐ Tenure Track
☐ Limited Term/Other

Your years of service:
(at Carleton)

Number of current graduate students you supervise: _____

Do your present interests lie primarily in: ☐ research ☐ both about equal
teaching

Do you have a research grant or contract: ☐ Yes ☐ No

Number of publications in the last 5 years: _____

Are you eligible for Carleton's special early retirement incentive? ☐ Yes ☐ No

If yes, do you plan to accept it? ☐ Yes ☐ No

III WORK-RELATED INFORMATION

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The following statements involve your current work situation, and your feelings about a voluntary separation or early retirement program.

For these statements use the following four point scale:

SD = Strongly Disagree

D = Disagree

A = Agree

SA = Strongly Agree

Item	(circle one)
I trust management to develop and administer a fair voluntary separation or early retirement program.	SD D A SA
Individuals who are not liked by management would experience pressure to accept voluntary separation or early retirement.	SD D A SA
My organization is managed effectively.	SD D A SA
I am more enthusiastic about my work now than when I began my career.	SD D A SA
I feel trapped in a job with limited opportunities for advancement.	SD D A SA
My job is the source of considerable strain to me.	SD D A SA
In my department I do not receive the recognition I deserve.	SD D A SA
I am satisfied with my overall work situation.	SD D A SA
My career is not moving along as well as I would like.	SD D A SA
If I were offered an adequate financial incentive, I would retire before the age of 65.	SD D A SA
Undergraduate education in Canada would be improved if there were less emphasis on specialized training and more on broad liberal education.	SD D A SA
The undergraduates with whom I have close contact are seriously under prepared in basic skills.	SD D A SA

END

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FIN