

Factors Affecting Physicians' Early Retirement Intentions: Implications For Healthcare Delivery

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Abstract

Several authors have postulated that changes in the healthcare system, such as the growth in managed care, decreasing reimbursement, and the movement toward more integrated healthcare systems, perceived negatively by mature physicians, may contribute to their early retirement. This, in turn, may produce adverse effects on the availability of medical care. This study explores this and other related issues through analysis of data obtained from a survey of nearly four thousand physicians regarding factors potentially relevant to their early retirement decision. While managed care is perceived to be an important factor in the early retirement decision of physicians, it does not necessarily lead to earlier retirement. Physicians rank financial and personal factors as more important in their retirement decision. Several of these factors significantly impact their expected early retirement age. The results have several important implications for healthcare delivery relating to the retention or early retirement of effective practicing physicians, succession planning, and seamless generation of income.

1.0 Introduction

Over the past several decades there has been gradual but dramatic change in the American healthcare system, moving it from one characterized by physician autonomy and mainly fee for service to one driven by consolidation, managed care, cost containment, and control by professional managers. This has been accompanied by an apparent increase in the rate of early retirement among physicians. An unpublished study by the American Medical Association showed that the average age of doctors at retirement dropped to 67.4 in 1995 from 69.8 in 1980 (Greene, 2000). 38 percent of doctors aged 50 or older contacted in a telephone survey between October, 1999 and April, 2000 plan to retire within the next one to three years. While 48 percent of those surveyed indicated that managed care was either a significant factor or the single most important factor in their decision to retire early, financial considerations were said to be even more important. "Many doctors would get out if they could financially" (Greene, 2000:2).

According to the American Medical Association, about 34 percent of practicing physicians are age 50 or older (Pasko and Seidman, 2002). As the number of physicians reaching potential retirement age continues to grow, and the aging of the baby boom generation approaches, interest in factors affecting physicians' early retirement will increase. This issue is particularly cogent since applications to medical school have declined over the past several years leading some to predict shortages in the availability of physicians (Greene, 2000; Thrall, 2001). U.S. medical school applications fell 3.7 percent in 2000, the fourth straight year of decline (The Wall Street Journal, 2001). Approximately 5,700 international medical graduates enter the workforce in the U.S. annually. Without this influx, the physician shortage anticipated in the future would today be a reality. Finally, there is evidence that many physicians who are retiring early have not made arrangements for a successor assuming such a person could be located. One study found that among those physicians who say they will retire within the next three years, half indicate that they have not made plans to transfer patients to another physician or group (Thrall, 2001).

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Recognizing the importance of this issue, the present study seeks to expand understanding of physician early retirement decisions by examining the influence of financial, personal, and environmental variables. To do so, this study utilizes data obtained by questionnaire from a random national sample of 4,000 physicians age 50 or older, that produced nearly 1,000 useable responses. 55 percent of these respondents (550) indicated their intention for early retirement. The data includes responses to numerous factors previously found to be informative about the early retirement intentions of individuals generally, as well as several factors, such as managed care, that may be particularly relevant for physicians.

Early retirement in this study is defined as intention of retiring before the age of 66.5, approximately the average retirement age for physicians nationwide and also the average age of expected retirement in this sample. Researchers consider a retirement age less than 65 to constitute early retirement, since average retirement age for the general population is scattered around 65. Historically for physicians average retirement age has been higher, approximately 67 over the last decade, although it is declining in recent years (Greene, 2000). This average late retirement age for physicians relative to other groups can be rationalized by their relatively larger investments in human capital and their higher opportunity costs of retirement.

2.0 Literature Review

Little research has been conducted to examine attitudes, intentions, and practices about early retirement among physicians and, of those limited works, most are descriptive. This may be because retirement was once considered unthinkable for most physicians. "On the one hand, their removal from a profession that has preoccupied them intellectually and emotionally for a lifetime leaves them without important sources of personal gratification and validation. On the other, is a popular perception of early retirement as a life with nothing important to do, filled with boredom and an early death" (Virshup and Coombs, 1993: 142). Research indicates that the more a person's self-identity is tied to their job, the more likely the person retires later (Feldman, 1994). There is evidence, however, that retirement decisions and perceptions among physicians are changing.

Early physician retirements are a new trend reported by hospital executives, physician recruiters and researchers. Frustration with managed care and other changes such as the medical field becoming a trade that is concerned with bottom-line economics rather than quality care, the high cost of malpractice insurance and wise financial planning by physicians that allows them to retire early are cited as reasons for the early retirement trend (Thrall, 2001; Green, 2000; Terry, 1995; Rowe, 1989). The health status of physicians and their spouses, a favorable pension, and an adequate actual or perceived income have also been cited as reasons for retirement (Rowe, 1989; Virshup and Coombs, 1993). Healthcare professionals also attribute the sudden early retirement of some physicians to their burnout and fatigue (Hawkins, 1991). In some parts of the country the increasing demand on physicians' services and the decreasing income of physicians are causing some physicians to retire early or leave the region (Goldberg, 1997). Healthcare experts see physician's dissatisfaction due to long hours and bureaucratic complications with respect to medical practice as the cause of increasing early physician retirement (Hawkins, 1991).

In writing about retirement behavior among professionals, Quinn (1997) noted that the self-employed often follow very different retirement patterns from those workers who are employed by others. At any given age, the self-employed were more likely than wage and salary workers to retire later-- and when they did retire they were less likely to leave the labor force in one move. The potential for many physicians to cut down on their workload, to enter a status of semi-retirement, exists both for those who are self-employed and those who are salaried (Kalogredis, 2000). The availability of "bridge jobs", or phased retirement and volunteer opportunities where they might use their skills in a less demanding way than full time practice, has been an important factor in enhancing early retirement for many physicians (Kim and Feldman, 2000; Harshman 1998). A number of physicians, particularly those whose identity is closely linked to their professions may continue to work indefinitely--one study found that some physicians have no plans to retire (Greenfield and Proctor, 1994).

A useful and comprehensive model of the retirement process developed by Beehr (1986) incorporates both personal and environmental factors theorized to affect retirement timing behavior. Beehr's model includes two

categories of work-related (e.g., job characteristics and satisfaction) and non work factors (e.g., leisure interests) that function in a multiplicative fashion to either “push” a worker to leave the workforce or “pull” to keep a worker in the workforce. These factors obviously vary from job to job and from profession to profession.

Several studies have identified poor health as one of the two most consistent predictors of retirement (Taylor and Shore, 1995; Talaga and Beehr, 1989). One study found that men in poor overall health expected to retire one to two years earlier than their cohort, an effect that persisted “after correcting for potential endogeneity of self-rated health problems” (Dwyer and Mitchell, 1998:173). Other studies have identified physical health as “an important determinant of a number of retirement behaviors and attitudes” (Taylor and Shore, 1995:76).

A second important personal variable is the individual’s financial situation, both real and perceived. This finding is not surprising since a rational decision of retirement timing is frequently posed as a tradeoff between greater annual consumption versus a longer period of retirement. Financial considerations include the actual level of social security and pensions as well as the individual’s confidence in their financial security during retirement. A number of studies have found financial considerations to weigh heavily in an individual’s decision to retire early (Kim and Feldman, 1998; Quinn, et al., 1990; Taylor and Shore, 1995). Samwick (1998:207) found that the accrual rate of retirement wealth is a significant determinant of retirement probability and that “simulations of extensions in pension coverage comparable to those that occurred in the early postwar period can account for one fourth of the contemporaneous decline in labor force participation rates.”

Psychological issues may also help to explain the differential timing of retirement. In some cases an individual’s self-esteem, need for achievement, and personal identity are closely linked to work, in other cases, “retirement may represent more of a relief than a deprivation” (Schulz and Salthouse, 1999:252). This diversity of experience leads some individuals to anticipate early retirement as a positive event and, therefore, to retire as early as possible, others to defer retirement for as long as possible (Evans, et al., 1985). Other personal factors affecting the timing of retirement considered in past research include anticipated social interactions following retirement (Beehr, 1986), the health status and propensity to retire of an individual’s spouse (An, et al., 1999), attitudes toward leisure and the extent of non-work interests (Beehr, 1986), and the potential to retire gradually using “bridge jobs” (Quinn, 1997).

Previous research in retirement timing has also examined the impact of a number of work-related variables. Beehr (1986) investigated whether individuals who are less satisfied and less committed to their work would be more likely to seek earlier retirement, with mixed empirical results. Taylor and Shore (1995) found that while job and organizational factors explained an additional 3 percent of the variance in their study of planned retirement age, they did not emerge as a strong predictor of retirement behavior. Others have identified a limited predictive relationship between satisfaction, organizational commitment, and early retirement behavior (Glamsner, 1981; Poitrenaud et. al., 1979).

In addition to worker related issues of job satisfaction and commitment, other organizational forces may operate independently to affect the early retirement decisions of individuals. For example, older workers are often perceived as “less efficient, less creative, less promotable, more resistant to change, and more rigid and prone to illnesses and accidents” (Forteza and Pioto, 1994:463). In a culture where “old” is defined to include individuals over 40, there is little doubt that workers nearing traditional retirement age face an organizational environment where marginalization and devaluation is a distinct possibility. This may be particularly true in fields of rapid technological change such as medicine. Further, organizational control has often involved schemes that act to “push” older employees out of the workplace (Mollica and DeWitt, 2000) or, alternatively, to “pull” them in via modifications to pensions and post-retirement health insurance. Thus, organizations act in subtle and important ways to affect the timing of an individual’s decision to retire.

In summary, while there is a substantial body of research devoted to early retirement among other occupational groups, limited attention has been paid to the timing of retirement among physicians or to whether they may accelerate retirement in the face of managed care and other changes in the healthcare system. In order to address this gap, the present study tests a simple empirical model of retirement by utilizing a unique data set - a

survey of a national sample of physicians. The present study builds on previous literature by systematically examining the influence of a comprehensive set of variables in the personal, work, and organizational domains that have been shown to affect the retirement timing of other professionals.

3.0 Data

Data were gathered in 2001 by mail questionnaires from 4,000 randomly selected physicians in all areas of specialization 50 years of age or older, throughout the United States. The questionnaire was designed to be relatively readable and short, in order to facilitate a high response rate. 1,200 returns were received, with 936 usable observations. The basic characteristics of the sample data were as follows: (1) The average age of respondents was 62.7 years and the average expected age for retirement was 66.5 years; (2) 88 percent of the respondents were married and 9 percent were female; (3) Respondents reported that their social security income was expected to be \$18,500 per year on average; (4) The average annual current salary of respondents was reported to be \$132,600; (5) The average estimated income anticipated from other sources during retirement (spouse’s income, pension income, property income, etc.) of respondents was \$72,000; (6) Five percent of the respondents indicated that they do not have any intention to retire unless their health situation forces them to. These subjects are potentially informative. Therefore, rather than introduce selection bias by discarding them, we impute the expected retirement age for those individuals who indicate that they have no intention to retire as the life expectancy of the respondent’s age cohort. About 55 percent of respondents were under age 66.5, which is considered as early retirement. It is important to note that the very high percent of reported expected early retirements at the time of survey may have been to some extent inflated by the relatively high contemporaneous valuation of the aggregate stock market.

4.0 Empirical Model

The simple work-leisure choice model of labor supply and labor participation, wherein an individual compares the wage-determined budget constraint with work-leisure preferences and decides on the basis of his/her utility whether or not to continue to be a labor force participant, must be extended when applied to physician retirement decisions. This study integrates the work-leisure choice model with life-cycle theory, which hypothesizes that people make work, consumption, and other important decisions simultaneously over many time periods. An individual’s current decision for the future depends upon the values of relevant variables today and on current expectations of future value. In order to examine this complex decision making process, this study incorporates personal and financial factors, as well as institutional and organizational factors such as working conditions and changes in the structure of healthcare organizations that may affect the decision to retire. Hence, the model employed in this study is:

$$ERRA_i = f(FF_i, PF_i, IAOF_i)$$

where $ERRA_i$ is an individual’s expected reported retirement age, FF_i are financial factors, PF_i are personal factors, and $IAOF_i$ are institutional and organizational factors posited to be relevant. The main financial factors, FF_i , included in the model are current annual salary, expected annual social security income, other income (e.g., spouse’s income, pension income, property income), and early retirement incentives. Personal factors, PF_i , used in this study are age, health status, health status of spouse, caring for family member, preferences for leisure (e.g., gardening, golfing, traveling, spending time with family), years of experience as a physician, and reported burnout. Institutional and organizational factors, $IAOF_i$, are working conditions (e.g., changing technology, work rules, pressure to see more patients), changes in the structure of healthcare organizations and the end of mandatory retirement. To estimate the coefficients on the “independent” variables and their impact on the expected early retirement age of physicians, the following model is employed:

$$Ln \frac{P_i}{1 - P_i} = a + \sum_{k=1}^K B_k X_{i,k} + E_i$$

The dependent variable in this logistic regression equation measures or predicts the probability of physicians choosing early retirement. To be more precise it is the logarithm of the odds ratio $\left(\frac{P_i}{1 - P_i}\right)$ that early retirement choice will be made by the physicians, where P_i is the probability that a physician will choose to retire early. The $X_{i,k}$ represents the k^{th} “independent” variable for the i^{th} respondent and B_k is the associated regression coefficients. This model is constructed to predict whether physicians would choose to retire early, conditional on information about financial and personal attributes of physician and attributes of their institutions. Because the opportunity to retire early provides a binary decision, a logistic regression (logit) model is used to analyze the data. This version of logistic model is more appropriate for an interdisciplinary study which is using cross sectional survey data. This version allows the dependent variable to be any number rather than restricting it to zero or one as does the regular logistic model.

TABLE 1: The Results of Logistic Regression

Parameter	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	0.4125	0.5063	0.6639	0.4152
ADEA	-0.1635	0.0588	7.7613 ^b	0.0053
AGE	2.1251	0.2084	103.9590 ^a	<.0001
APJ	-0.1868	0.0547	11.6706 ^a	0.0006
APMI	0.1169	0.0485	5.8148 ^b	0.0159
ERI	0.2937	0.0556	27.9343 ^a	<.0001
CI	0.00337	0.00136	6.1384 ^b	0.0132
DD	0.1008	0.0574	3.0878 ^c	0.0789
DI	-0.1727	0.0561	9.4861 ^a	0.0021
HSS	-0.1845	0.0438	17.7164 ^a	<.0001
DEP	-0.3567	0.1795	3.9507 ^b	0.0469
PENS ₃	0.4559	0.1842	6.1257 ^b	0.0133
PENS ₂	0.3978	0.2310	2.9657 ^c	0.0851
PL	0.1142	0.0557	4.1980 ^b	0.0405
EST ₂	0.4983	0.2486	4.0168 ^b	0.0450
EST ₃	0.5106	0.2081	6.0229 ^b	0.0141
EST ₅	-0.6952	0.3810	3.3294 ^c	0.0681
SSI	-0.0709	0.0158	20.1367 ^a	<.0001
WC	0.1019	0.0585	3.0409 ^c	0.0812
WSB	0.1415	0.0539	6.8972 ^b	0.0086
YRS	-0.0343	0.00715	23.0061 ^a	<.0001

a. statistically significant at the .01 level
 b. statistically significant at the .05 level
 c. statistically significant at the .1 level

Note: Stepwise procedure is used to select the most important independent variables in the model.

retirement of some physicians. This is consistent with the overall trend for all other occupations for both men and women as statistics show that among men and women aged 65 or older, after passage of ADEA the likelihood of retirement has decreased (Gendell, 2001). The coefficient of age variable (AGE) is highly significant and shows that physicians older than 60 years of age are more likely to consider early retirement compared to those physicians that are under 60 years of age.

The coefficient of availability of part-time job (APJ) is highly significant and has the expected negative sign, indicating that part-time job opportunities may delay the early retirement of physicians. Partial retirement helps physicians to remain productive and allows them the flexibility to pursue other interests.

4.1 Analysis of Maximum Likelihood Estimates/Discussion

Table I. shows the results of logistic regression analysis. Concordance is equal to 83.7 percent and shows the association of predicted probabilities and observed responses. This very high percentage of concordance indicates that the logistic regression model fits the data very well. Because the logit model with individual observations is used in this study, the most suitable estimation technique (maximum likelihood) is used to estimate the parameters of independent variables.

To check for multicollinearity between some suspected independent variables, the variance inflation factor (VIF) analysis was performed. The results indicated that there are no serious multicollinearity problems between suspected independent variables (for application of VIF analysis see Allison 1999, and Theil 1971).

The estimated coefficient of the variable for the 1986 *Amendments to Age Discrimination in Employment Act* (ADEA), which abolished the mandatory retirement age, has the expected negative sign and is significant, indicating that this act has decreased the likelihood of early

The estimated coefficient of the variable for availability of paid medical insurance (APMI) is significant and shows that if paid medical insurance is provided for retiring physicians, the likelihood of their early retirement increases. Providing early retirement incentives (ERI) also is very highly significant and increases the probability of early retirement. The coefficient of current annual income (CI) is significant and has positive sign, implying that other things being equal, the higher the current income it is more likely that a physician will choose early retirement. This means that the income effect of the higher salary, which is negative with respect to work, will dominate the substitution effect of the higher salary, which is positive with respect to the work. The coefficient of variable for decreasing discretion in patient care (DD) is significant and increases the probability of early retirement. Decreasing annual income (DI) of physicians is also highly significant and causes the likelihood of early retirement to decrease. This is a logical outcome because, due to decreased income, a physician must retire later in order to accumulate an adequate source of income, which is perceived to be necessary for the retirement years.

The health status of spouse variable (HSS) is highly significant and it has negative sign implying that having an ill spouse decreases the chance of early retirement. There are three plausible explanations for this effect: (1) when a physician's spouse is ill he/she needs to work to maintain the family health insurance; (2) he/she needs to work to pay for medical expenses that are substantial at older age; (3) it's no fun being home with a sick spouse. Having financially dependent (DEP) family members such as college-age child or children decreases the probability of early retirement. Both defined pension (PENS₂) and defined contribution pension (PEN₃) plans are significant and they increase chance of early retirement. However, the impact of the defined pension plan is greater than defined contribution plan, because the latter does not have any adverse effect on actuarial income as former does after age of 65. Findings of research are consistent that defined benefits plans include provisions that make early retirement financially more attractive (Poterba, Vanti, and Wise, 2002). The coefficient of the preference for leisure variable (PL) has the expected positive sign and is significant, implying that preference for more personal special interests (e.g., golfing, spending time with family, traveling, gardening) increases the likelihood of early retirement. The coefficients of three out of five employment setting variables are significant and two of them (multi specialty group or clinic practice (EST₂)) and single specialty group practice (EST₃) increase the chance of early retirement compared to the reference employment setting of solo practice; the third employment setting (EST₅) (full-time academic) decreases the chance of early retirement. Two other employment-setting variables have the right signs but they are not statistically significant. It is plausible that the employment setting (full-time academic) decreases the chance of early retirement because, compared to the reference employment setting of (solo practice), being a full-time academic provides more freedom for physicians.

The estimated coefficient of social security income variable (SSI) is significant and has negative sign, suggesting that it causes the probability of early retirement by physicians to decrease. This is consistent with the findings of Holden and Hansen (1989) and Bahrami (1999). The relative amount of social security income is so small that, other things being equal, it might create negative psychological impact toward early retirement.

The coefficient for general working conditions (WC) (e.g., new work rules, dealing with HMO's, peer relations) is significant with expected positive sign, suggesting that work conditions contribute to the likelihood of early retirement of physicians. The coefficient for work stress and/or burnout (WSB) also is highly significant, implying that work stress and burnout increase the chance of early retirement of physicians. This finding is consistent with evidence indicated by health professionals and previous research finding (Hawkins, 1991, Bahrami, Elder, and Jacobson, 2002).

Finally, the coefficient for years of service (YRS) as a full-time physician at the time of retirement is highly significant and has negative sign, suggesting that the more years of service as a full-time physician at the time of retirement, less likelihood of early retirement. This is a logical result, because those physicians who will serve longer than others are less likely to retire early

4.2 Conclusions and Policy Implications

A variety of factors influence early retirement decisions of physicians. Although some of these factors are not controllable, an understanding of these factors and their effects may help administrators and policy makers in

medical and health related fields in human resource planning and decision making processes. Healthcare officials and human resource planners will know their limitations and the types of policy initiatives that are effective. Other variables such as pension plans, work stress/burn-out, early retirement incentives, availability of part-time job, availability of paid medical insurance, working conditions, decreasing annual income, and decreasing discretion in patient care can be changed or modified to fit the human resource planning of health care organizations. Depending on the need industry pension plans can be changed to induce physicians to retire when they approach age 65 (defined benefits) or to stay longer (defined contributions). By encouraging open communications, forming focus groups, and establishing internal advisory committees for discovering the sources of work related stress and burnout, employers can modify work environment to reduce these problems.

If it is desired to motivate some physicians to retire early, the early retirement incentive may increase the probability of early retirement. These incentives should be designed very carefully to avoid encouraging the most productive physicians to take advantage of them and move to other employment, or encourage their early departure. One possible solution is to have a selective policy clearly stipulating that early retirement is not a right of every physician who is eligible for the program.

Availability of part-time job options can help physicians to remain active and allow them the flexibility to pursue other interests. For example, because preference for leisure is a significant factor in early retirement decisions, partial retirement options provide opportunities to physicians to spend more time with their families and engage in other activities and, at the same time, stay productive. Such arrangements have been found to sustain the psychological well being of older workers and will enable hospitals and other healthcare organizations to ensure seamless care for patients and avoid significant losses of revenue (Pessolano, 1994, Hawkins, 1991). Providing paid medical insurance for a limited time until eligibility for Medicare insurance may also encourage some physicians to retire early. This policy can be initiated selectively for some physicians who are unproductive or they may endanger patient care due to illnesses or lack of skills in new procedures and development in the medical field. Finally organizational rules and procedures and compensation system can be modified to effect retirement of physicians according to needs of the organizations.

4.3 Implications for Future Research

Empirical data made it possible to investigate the perceived importance of a wide variety of factors on the early retirement intentions of physicians. The survey included many factors, based on previous research in the early retirement area. Although the close connection between retirement intentions and actual behavior has been established in the past (Bernheim, 1988) inferences of causality concerning this cross-sectional analysis should be made cautiously. To gain adequate understanding of the early retirement process, future research may incorporate panel studies of potential early retirees following their decision-making processes from the decision to retire early through their retirement.

While reliance on self-report in terms of gender, age, family status, and other demographic variables may be acceptable, responses to other variables may have been strategic or distorted. Health and financial status have been found to be vulnerable to this kind of distortion in prior research (Feldman, 2000, Anderson and Burkhauser, 1985). While data distortion can be corrected through linking self-reports with verifiable archival data (Kim and Feldmand, 2000), obtaining such data across a broad sample of physicians such as that surveyed in this study would be impractical.

In this study the likelihood of such distortion is small, because the sample size was large and the population was highly educated and homogeneous. Finally, more research is needed to establish links between factors leading individual physicians to retire early and specific context in which that decision is made in terms of area of specialization, regional setting, etc. 📖

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Notes