THE PHASED RETIREMENT DECISION: EVIDENCE FROM KANSAS REGENTS FACULTY

Kathleen Arano, Fort Hays State University
Carl Parker, Fort Hays State University
Owen Parker, Fort Hays State University

ABSTRACT

Incentive based phased retirement programs have the potential to help universities and address the issue of an aging faculty workforce and to manage costs. We investigate demographic, economic, and job related factors influencing the phased retirement decision of a faculty member at all Kansas Regents institutions. A multinomial logit model of the phased retirement decision is estimated using decision options ranging from consideration of retirement to uncertainty about retirement. We find evidence to suggest overall satisfaction with academic career increases the probability of considering phased retirement and that the value of phased retirement to faculty is lower for predominantly teaching institutions. *JEL Classifications: J26, J22*

INTRODUCTION

Recent adverse financial market performance has likely influenced many individual university faculty retirement decisions. Such decisions may involve when to retire, changes in retirement portfolio allocation, and potential adjustments related to expected lower living standards during retirement. Even the retirement date may be reconsidered and may no longer be an "all or nothing" decision.

The retirement decision of university faculty has important implications for both individual faculty and the university as an employer. Evidence from faculty age distributions suggest that universities are likely to face faculty shortages in the near future as increasing numbers of "baby-boomer" faculty retire. Nationally, 31 percent of full-time instructional faculty were 55 years of age or older in 2003 (NCES, 2006). In the Kansas Regents system the percentage of faculty 55 years of age or older has increased from 31.5 percent of tenure positions in 2002 to 38 percent in 2008. Replacing faculty is likely to become a more significant issue facing higher education institutions. In a shortage scenario, competition among universities for qualified faculty will drive salaries up to attract new faculty and to retain existing faculty. Noncompetitive universities will have either unfilled faculty positions or positions staffed by less qualified faculty. Higher salaries mean higher costs and upward pressure on tuition and fees, whereas lesser qualified faculty may translate into reduced student admissions as students migrate to "better" schools, resulting in reduced tuition revenues.

Incentive based early/phased retirement programs are increasingly being used as potential management tools by universities to address the aforementioned issues, permitting them to hire new faculty earlier than otherwise and to have time to

plan for faculty replacements. From a faculty perspective, the opportunity to phase into retirement may be viewed as a preferable alternative to a full retirement decision.

The primary purpose of this research is to examine demographic, economic, and job related factors that influence the decision of a faculty member to opt for phased retirement. We estimate an econometric model of phased retirement and discuss possible implications of our results. For example, can phased retirement plans help ease the transition from an aging faculty workforce to a younger cohort of new faculty? In addition, can phased retirement be utilized as a tool to manage costs? This is particularly important today given the current economic downturn that has adversely affected the budgets of institutions of higher education. The paper also provides a descriptive summary of the profile of our sample with respect to interest in phased retirement programs.

PHASED RETIREMENT

There are various types of early retirement programs. These include: (1) a "window" plan in which faculty receive enhanced benefits if during a specified period of time (a "window") they elect to retire at a specified time;[1] (2) open ended or non-window plans that provide lump-sum payments (severance pay) usually a percentage of final salary at a specified retirement age;[2] (3) extending fringe benefits (e.g., health insurance and/or provision of non-monetary prerequisites such as post-retirement office space, research assistance, etc.); (4) Social Security supplements in which extra benefits (in the case of a defined benefits plan) are paid equal to some percentage of social security benefits they would have received if the faculty member had delayed retirement until a specific age (e.g., age 65); and (5) phased retirement plans as partial early retirement.

In terms of phased retirement in an academic institution setting, this can be either a formal agreement applied uniformly to all eligible faculty or negotiated between an individual faculty member and the institution. Phased retirement agreements can be "equal reduction in pay for equal reduction in workload" that is cost neutral to an institution or subsidized, in that total compensation, including fringes, are reduced by less than workload. Most recent studies have found considerable variation in the terms and conditions of phased retirement policies among universities examined (Ehrenberg, 2001; Leslie and Janson, 2005).

Various studies have investigated social, demographic, and economic factors influencing retirement decisions of workers in general[3] and faculty at higher education institutions in particular[4]. This literature places an emphasis on the financial preparedness of retiring workers particularly due to declining savings, rising health care cost, and uncertainty about Social Security.

The issues of early retirement, partial retirement and phased retirement have also been studied[5]. One of the issues in the literature is the definition of partial and/or phased retirement – be it self- reported, reduction in usual hours worked per week, per year, leaving a job where employed for ten or more years, working less than 1750 hours annually, or a reduction in hourly wage or weekly earnings. Chen and Scott (2006) found that few workers engage in phased retirement and that there are significant differences in certain personal, household, and job related characteristics between those who participate and those who do not participate in phased retirement. For instance, those who are better educated and have greater household wealth and

income are more likely to be phased retirees. Moreover, managers and those who are in white-collar, highly skilled positions are likewise more likely phased retirees.

In academia, early retirement/phased retirement programs are increasingly being utilized as a tool to address the issue of near-term retirement among a large cohort of senior faculty. Using 1996 data from Kansas Regents faculty, Rickman and Parker (2005) found that phased retirement is popular among older faculty and that the provision of health insurance is an important part of the decision. They also found evidence that early retirement incentives are most effective when faculty are prepared financially to retire. Allen (2004) argues that phased retirement creates value for both the institution and faculty based on evidence from University of North Carolina (UNC) faculty. On the university side, phased retirement increases the likelihood of early retirement for low-performing faculty. On the faculty side however, phased retirement smoothes out the transition to full retirement. Ghent, Allen and Clark (2001) found that, had the phased retirement option not been available for faculty of the 15 campuses of the UNC system, the faculty members who opted for phased retirement would have likely remained full-time.

We investigate the phased retirement decision of a set of university faculty members from a single data set, thus allowing for the control of variables that are otherwise difficult to control for (e.g., pension plan characteristics). Previous studies have only considered a bivariate decision with respect to phased retirement (yes or no) or the decision between full retirement vs. phased retirement. This paper investigates the phased retirement decision by including the entire range of decision options – consideration (yes or no), participation, and even uncertainty about phased retirement.

DATA AND SAMPLE PHASED RETIREMENT PROFILE

A major contribution of this research is that the analysis is based on a data set where demographic and financial information are collected from individual faculty at all Kansas Regents universities. The homogeneous nature of the sample controls for variables that are otherwise difficult to model. All faculty members in the Regents system face the same pension plan characteristics in terms of required faculty contribution levels and the percentage match of retirement funds by the state. Although defined benefits plans are the most common type of plans in the public sector, including public colleges and universities, Kansas Regents faculty participate in a defined contribution retirement plan in which faculty choose how retirement contributions are invested. Kansas Regents faculty members choose from authorized companies that offer similar investment options and services. There is no evidence to suggest that planners or agents of these providers influence the asset allocation decision of individual participants other than by providing information. The investment options reflect a typical menu that includes money market funds, real estate funds, bond funds, growth funds, income funds, and international funds. Each company includes a social choice/awareness fund in which investments may represent, partially, a non-financial objective. Overall, the pension plan "rules" faced by Kansas Regents faculty members do not significantly limit choices of faculty with respect to individual investment allocation strategies. Additionally, investment choices for this faculty group do not include purchases of individual common stock thus eliminating many of the issues of nonsystematic risk.

The homogeneity of occupation likewise reduces the likelihood that desired

investment choices influence choice of an employer by virtue of investment options offered by the firm. Faculty members also have similar access to pension-plan information. In terms of geographic location, most faculty members live in Kansas and, therefore, face similar pricing for consumer goods, a similar culture, and the same state tax-rate structure. Since the Kansas faculty in this sample are older, have more formal education, higher incomes and greater wealth than the general population, the findings cannot be generalized to the entire United States population. However, this data set enables the examination of early/phased retirement behavior of a mature group in which saving for retirement is their primary investment objective.

The purpose of the survey instrument was to assess planned retirement behavior of Kansas Regents faculty and contained questions designed to assess faculty interest and responses to various hypothetical early/phased retirement scenarios posed to them. All tenure-track faculty age 50 and over at all Kansas Regents institutions were surveyed in 2003 with a 35 percent response rate.[6] Faculty members in this data set have participated in the Kansas Regents pension plan for an average of 19 years, have an average age of 58 years, and 25percent are female.

Overall, about 64percent of faculty felt they would consider participation in a phased retirement program while 6.4 percent are already in the program. When separated into specific age groups, more than 60 percent of faculty in age groups from 50-64 years old said they would consider opting for phased retirement while about 27 percent and 30percent of faculty in age groups 65-69 and 70-75, respectively, are already participating.

TABLE 1
INTEREST IN PHASED RETIREMENT PROGRAM:
ALL FACULTY AND BY AGE GROUP (PERCENT)

Age Group	Yes, would consider it	Yes, already participate	No, would not consider it	Not certain
All Faculty	63.6	6.4	18.3	11.6
Age Group	67.8	0	17.2	14.9
50-54	72	1.5	15.5	11
55-59	63.1	6.3	19.1	11.5
60-64	41.1	27.4	26	5.5
65-69	40	30	15	15
70-75				
Valid n = 627				

The phased retirement program gives the faculty member an option to reduce their workload from full-time to a part-time employment ranging from a 25 percent to a 75 percent reduction. This arrangement may be for a maximum of five years. The contribution into the state's basic retirement continues to be based on 100 percent of salary and there is no reduction in medical insurance contributions by the State. From table 2, we can see that a majority and approximately the same percentage of faculty who already participate in phased retirement and those who are just considering phased retirement prefer 50 percent-69 percent of full-time workload (72 percent vs. 74 percent). The majority prefers 5 years of phased retirement, with 48.1 percent preferring to start phased retirement between the age range of 60-64. Seventy-eight percent of faculty who are in the program and 61percent of faculty who would consider participating prefer to have a total of 5 years phased retirement.

TABLE 2
PREFERENCES TOWARD PHASED RETIREMENT

Preferences	Yes, would consider it (Percent)	Yes, already participate (Percent)	All faculty who would consider and already participate
% of Full-time Employment			
25-49	10	15	10.4
50-69	74	72	73.5
70-75	16	13	16.1
Total	100	100	100 Total
Valid n=434			
Years of Phased Retirement			
1	1	0	0.4
2	7	5	6.6
3	24	14	23
4	7	3	6.6
5	61	78	63.4
Total	100	100	100 Total
Valid n=426			
Age Starting Phased Retirement			
55-59			
60-64	13	10	12.4
65-69	48	46	48.1
70-75	30	36	30.8
Total	9	8	8.6
	100	100	100 **Total**
Valid n=428			

PHASED RETIREMENT EMPIRICAL MODEL

The life-cycle allocation of time theory predicts an inverted U pattern for real wages. This indicates that during their prime working years (ages 24-54), the opportunity cost of each additional hour of leisure is higher relative to later years in life which leads to a strong incentive for the worker to substitute work for leisure midlife while increasing leisure hours later in life. In addition, given the increase over time in real wages due to economic growth which sets off an income effect and a substitution effect on the labor supply decision, the life cycle model predicts that the optimal time to take additional leisure hours occurs as the time horizon for retirement approaches. Increased demand for leisure borne out of the income effect may lead the worker to early retirement or phased retirement if the option is available.

When making the retirement decision, for a given planning period, workers maximize utility for the remainder of their life. In the absence of mandatory retirement age, the retirement decision becomes more of a personal choice influenced by economic factors such as accumulated retirement wealth, job related factors, and a set of individual and/or family characteristics. These factors also apply to the phased retirement decision. For instance, phased retirement may allow workers to gradually

ease into full retirement, balancing between more time for leisure and time spent at work.

Economic variables that will influence the faculty member's decision to opt for phased retirement include current salary and expected retirement wealth. Current salary (CY) may have two opposing effects on the phased retirement decision. A higher salary increases the opportunity cost of leisure thus reducing the consumption of leisure (a substitution effect). A higher salary implies more wealth that allows for more consumption of normal goods, including leisure (an income effect). Therefore, the net effect of earnings on retirement (the "purchasing" of leisure) is unclear and depends upon the relative strengths of these two effects. Additionally, current salary can serve as a proxy for the financial ability to enter into phased retirement at a reduced salary and achieve a desired post-retirement standard of living. Expected retirement wealth (RW) will also affect phased retirement. A perceived adequate retirement wealth increases the likelihood of full retirement, or decrease the likelihood of phased retirement. On the other hand, higher retirement wealth may increase the attractiveness of phased retirement if the faculty prefers to ease into full retirement rather than retiring early, or if the faculty perceives the work as important in and of itself rather than just the monetary benefits it provides. Chen and Scott (2006) found that phased retirees from the 1992-2002 waves of Health and Retirement Study (HRS) have higher income suggesting a stronger income effect and also have greater wealth.

A variable related to retirement wealth is if the faculty member has established a plan to save for retirement other than the regular pension plan (DSRET). Empirical results from studies that have examined retirement in general point out the importance of financial preparedness for retirement. This factor should have a similar direction of effect on phased retirement as does RW. The type of pension plan will also influence phased retirement, depending on how benefits calculations are affected. We do not include this factor in our model since all faculty members participate in a defined contributions pension plan and the Kansas phased retirement program continues to pay into the state basic retirement based on 100 percent of salary.

In terms of demographic factors, age, life expectancy (LEXPEC), health status (HS), marital status (MS) and gender (GEN) are considered to affect the decision to opt for phased retirement. The life-cycle theory of labor supply predicts that workers tend to prefer more leisure to work when they are closer to retirement. The incentive to ease into full retirement can be facilitated through phased retirement. Related to age, the phased retirement decision should be influenced by the faculty's assessment of life expectancy—in the utility maximization model of work vs. leisure, a lower life expectancy results in the choice for more leisure, thus, phased retirement becomes more attractive. The survey asked faculty to estimate the average life expectancy for someone of their age and gender, i.e., the average age that someone like themselves usually live. The average life expectancy of female faculty is 83.17 years and 80.44 years for male faculty.

Health status may also affect the phased retirement decision. The general assumption is that poor health will result in earlier retirement. Greater difficulty in carrying out work responsibilities and perhaps increases in the amount of time required for health care may lead to early or partial retirement through a decrease in utility from work activities (or relative increase in utility from leisure). However, if poor health requires increased consumption of health care related goods and services, the marginal utility of those goods as well as goods in general may increase which in

turn may delay retirement or an alternative choice of phased retirement. Sammartino (1987) and Dwyer and Mitchell (1999) find workers with poor health retire earlier. There is little empirical evidence to evaluate the effect of poor health on the decision to opt for phased retirement. However, poor health would, a priori, increase the likelihood of early retirement.

There are alternative measures or proxies that assess health status with disagreement over the relative efficacy of these measures. A major source of disagreement involves the validity of using self-assessment measures of health status rather than a formal clinical assessment. Arguably the availability of disability benefits and/or job dissatisfaction may provide an incentive for some individuals to overstate the severity of a health condition and use health status as a "socially acceptable" rationalization for exiting the labor force early rather than revealing they have a stronger preference for leisure rather than work. This concern is irrelevant for this data set since, at the time of the survey, all faculty are working and hence not providing a post-retirement reason for retirement. Further, although one's perception of poor health may not be fully supported clinically, the perception itself may nevertheless influence the retirement decision and hence is important.

The survey asked faculty to describe, on a Likert scale, the state of their health and whether they have a health condition that limits ability to work.[7] Overall 98.1 percent of faculty reported their health as either "very good" or "good". Only one faculty member over age 55 reported a "very poor" health. This likely indicates that older faculty with poor health retire. If not, the Likert scale for poor health is likely different for faculty over age 55 compared to younger faculty. Gruber and Madrian (1995) note that individuals in the age range 55-64 are three times more likely to self report health as "fair" or "poor" compared to the 25-54 age group.

Marital status may be relevant when considering joint decision making in terms of possible coordination of retirement dates. If a married faculty member is younger than their spouse, the likelihood of phased retirement may increase if it is used as a strategy to balance more leisure time spent with the spouse who is older and more likely retired or closer to retirement age. In terms of gender, the attractiveness of the phased retirement program in a dual wage earner household may be higher for women if they have more responsibilities at home while also working.

The last group of factors considers those related to the academic career of the faculty. Overall satisfaction with the progress of the academic career (DACAD) should increase the perceived benefits of phased retirement. A faculty who is satisfied with his/her overall academic career may place more value on the nonmonetary benefits of working and may look at phased retirement as a good solution to balancing more free time and work. Total years of work in the academe (TYRS) can be an indicator of job match, and the longer the faculty has worked in the academe, the job culture and work experience should increase the utility from working, and may increase the incentive to use phase retirement to ease into full retirement. The type of academic institution (TEACH; primarily teaching versus research) may lead to different benefits to phased retirement. Allen, et al. (2004) argue that for a predominantly teaching institution, a reduction in teaching load associated with phased retirement “buys more free time” as opposed to research institutions.

Model Specification and Estimation

The faculty survey obtained information on preference for phased retirement based on four possible choices: Yes, would consider it (YC); Yes, already participate (YP); No, would not consider it (N); and not certain (NC). Given the nature of the dependent variable of interest, the empirical model for phased retirement is estimated using the multinomial logit specification. The general specification of the model is (Maddala, p. 35, 1983):

$$P_j = \frac{\exp\left(\beta_j' X\right)}{1 + \sum_{k=1}^{m-1} \exp\left(\beta_j' X\right)} \tag{1}$$

with j+1 possible categories (m) and the vector of X variables are characteristics of the observed individuals, not the categories. For the multinomial logit model of phased retirement choices as specified above, the model is:

$$P(Y_i = YP) = \frac{\exp(\beta_{YP} X_i)}{(1 + \exp(\beta_{YP} X_i) + \exp(\beta_N X_i) + \exp(\beta_{NC} X_i))}$$

$$P(Y_i = N) = \frac{\exp(\beta_N X_i)}{(1 + \exp(\beta_N X_i) + \exp(\beta_{YP} X_i) + \exp(\beta_{NC} X_i))}$$

$$P(Y_i = NC) = \frac{\exp(\beta_{NC} X_i)}{(1 + \exp(\beta_{NC} X_i) + \exp(\beta_{YP} X_i) + \exp(\beta_N X_i))} \tag{2}$$

$$P(Y_i = YC) = \frac{1}{(1 + \exp(\beta_{YP} X_i) + \exp(\beta_N X_i) + \exp(\beta_{NC} X_i))}$$

The vector of X_i variables includes the demographic, economic, and job related factors that were discussed in the previous section. The notations and definitions of these variables are in Table 3 below. Since the parameter estimates in this model are not the marginal effects, the marginal effects are calculated and the results reported in the next section.[8]

TABLE 3
EXPLANATORY VARIABLES DEFINITIONS AND MEANS

Variable	Definition	Mean*
AGE	Years of age	59
LEXPEC	Faculty's best estimate of life expectancy	81
HS	=1 if faculty reported health status as good; =0 if poor/very poor	0.98
MS	=1 if married	0.83
GEN	=1 if male	0.80
CY	Current university salary for the academic year ($)	75724.33
RW	Retirement wealth from faculty's estimate of total value of all personal savings, investments and retirement funds ($)	972506.58
DSRET	=1 if faculty has established a plan to save for retirement other than the pension; =0 otherwise	0.81
DACAD	=1 if faculty satisfied with progress of overall academic career; =0 if neutral to dissatisfied	0.87
TYRS	Total number of years working for an academic institution	27
TEACH	=1 if mainly teaching institution, Fort Hays State University, Pittsburgh State University and Emporia State University; =0 if research includes University of Kansas, Kansas State University and Wichita State University	0.21

*means of dummy variables are interpreted as the percentage of "1s" in the sample.

RESULTS

Table 4 reports on the marginal effects of the demographic, economic and job related factors on the four available options for the phased retirement program. All of these factors jointly explain the phased retirement decision with a chi-square statistic of 129.17.

TABLE 4
MARGINAL EFFECTS OF THE EXPLANATORY VARIABLES ON PHASED RETIREMENT OPTIONS

Explanatory Variables	Marginal Effects of Lying Within a Phased Retirement Option			
	Yes, would consider (YC)	Yes, already participate (YP)	No, would not consider (N)	Not Certain (NC)
AGE	-0.003	0.001***	0.002	-0.0003
LEXPEC	-0.002	-0.001	-0.001	0.003
MS	-0.129**	0.003	0.149**	-0.023
GEN	-0.020	0.003	0.019	-0.003
CY	-0.436D-06	-0.680D-06*	0.514D-06	0.592D-06
RW	0.506D-07	0.320D-08	-0.124D-07	-0.414D-07***
DSRET	0.056	0.004	-0.028	-0.032
DACAD	0.127**	0.006	-0.075***	-0.057**
TYRS	-0.002***	0.001***	0.0002	0.001
TEACH	-0.067***	-0.011***	0.117*	-0.039
	n=303	n=29	n=92	n=47
Chi Square Statistic= 129.17, p-value=0				
N (total)=471				

***Significant at 1%, ** at 5%, and * at 10%

In terms of faculty members who consider participating (YC) or those who already participate (YP) in phased retirement, TYRS and TEACH are both highly significant factors. The longer a faculty member has worked for an academic institution (TYRS),

the greater is the likelihood of participating in a phased retirement program. Longer tenure in the academe may be an indicator of job match and phased retirement is being utilized by the faculty as an avenue to ease into full retirement. On the other hand, those who are still in the process of considering phased retirement are less likely to consider it the longer the tenure. The fact that this group of faculty are still in the process of considering phased retirement may imply a preference for full retirement given the longer tenure.

In contrast to the results of Allen, et. al (2004) where the value of phased retirement was found to be higher for teaching institutions within the UNC system, our results show that faculty from predominantly teaching institutions within the Kansas Regents system are significantly less likely to consider phased retirement or participate in a phased retirement program. Our results may capture the fact that overall utility for working in a predominantly teaching institution may be lower relative to a research institution. One might find a greater variety of intellectual activities and stimulation and flexibility in work schedule in research institutions which increases the attractiveness of phased retirement as a way to ease into full retirement. It should also be noted that although we differentiate the 6 Kansas Regents schools between teaching vs. research, there might still be some amount of variation within the teaching schools group which we are unable to control for. For instance, although the typical teaching load is 12 credit hours a semester, adjustments may be made if a faculty is teaching a graduate course, if a faculty is assuming other administrative duties, or has obtained reduced load for research activities.

Still on the decision to consider phased retirement, married faculty (MS) are less likely to consider it. The average age of the faculty in the sample was 58 while the average spouse's age was 56. The empirical result on the MS variable confirms the initial hypothesis of joint decision making in the form of retirement age coordination. Since on average, the age of the faculty member is closely matched with the age of the spouse, full retirement may be a more attractive option relative to phased retirement. Those who were satisfied with the overall progress of their academic career (DACAD) are also more likely to consider phased retirement implying significant nonmonetary benefits of working as hypothesized earlier.

As a faculty member gets older starting from the age of 55, the probability of participating in the phased retirement program increases. To consider the possible nonlinearity of the effect of age, an alternative model was estimated where the age variable was entered into the model as dummy variables accounting for different age groups from age 55 to 75.[9] The age group between 70-75 showed the largest marginal effect, 2.3 percent more likely, followed by the age group 65-69 who were 2 percent more likely, then the 60-64 age group who were 1.2 percent more likely to be in the phased retirement program, as opposed to those who were 55-59 years old (the base group). For those who are already participating in phased retirement, these results are consistent with the life-cycle labor supply theory—that taking additional leisure hours as afforded by phased retirement occurs the closer the faculty is to full retirement. The results on age likewise imply that it may not have a significant effect on the decision to consider phased retirement, but for those who are already participating, it is a highly significant factor.

The significant yet relatively small impact of current income (CY) on phased retirement participation may be a reflection of the relative sizes of the substitution and income effects in the labor supply decision. Since the marginal effect is negative, it implies that the substitution effect of a higher salary outweighs the income effect by a

relatively small amount such that phased retirement is a less attractive option (or the "purchasing" of more leisure time).

In terms of the option, would not consider phased retirement (N), marital status (MS), satisfaction to overall academic career (DACAD) and type of academic institution (TEACH) are all significant predictors. Consistent with the results of DACAD and TEACH on the decision to participate on the phased retirement program as discussed above, faculty members who are satisfied with their overall career are less inclined not to consider phased retirement while those who work in a predominantly teaching institution are more likely not to consider phased retirement. Those who are married are more likely not to consider the phased retirement program. Again, this is consistent with the result from the decision to consider phased retirement which indicated that the joint decision making for married faculty resulted in less likelihood to consider phased retirement.

The final phased retirement decision option investigated was for not certain (NC) option. Only two factors were significant, retirement wealth (RW) and overall satisfaction with career (DACAD). As expected, those who were satisfied with overall career were less likely to be uncertain about phased retirement. In fact, results from the options would consider and would not consider indicate that better overall satisfaction with career increases the likelihood of considering phased retirement, and alternatively, decreases the likelihood of not considering phased retirement. Higher expected retirement wealth likewise reduces the likelihood of being uncertain on phased retirement.

Health status (HS) which was theoretically predicted to have a significant effect on the phased retirement decision from the behavioral model presented in the previous section was not included in the empirical model presented here. This is due to the lack of variation in this variable within the sample utilized when the full model was estimated.

SUMMARY AND CONCLUSIONS

The data set utilized provides a unique opportunity to examine phased retirement per se for university faculty as it includes a more comprehensive set of decision options from only consideration (either yes or no), to participation, and to uncertainty. Previous studies have only investigated mostly a bivariate decision on phased retirement—either participate or do not participate, or consider the full set of overall retirement options among working full time, entering phased retirement, or entering full retirement. The homogenous nature of the sample allowed us to control for variables that are otherwise difficult to control for in the retirement decision. For instance, all faculty members face the same pension plan characteristics and access to pension-plan information. Over 64 percent of the faculty in the survey said they would consider phased retirement, 6 percent already participate, 18 percent would not consider it, and 12 percent are not certain.

More insights are revealed from the results of the multinomial logit model for phased retirement. Of the demographic, economic, and job related factors considered in the empirical model, a few factors emerged as significant predictors of the four decision options available relative to phased retirement. In terms of the demographic variables, age was significant in the decision to participate in phased retirement while marital status had a significant effect on the decision to consider phased retirement, both in the affirmative (yes) and negative (no). From age 55, the

probability of participating in a phased retirement program increases as the faculty gets older. This indicates that phased retirement is an attractive option for the faculty who want to ease into full retirement. For the academic institution phased retirement can be used as an effective tool to possibly ease the transition from an aging faculty to a new cohort of younger faculty. It must be noted that participation in the phased retirement program implies the application of the faculty and the approval of the academic institution. Thus, not everybody who wants to participate gets into the program. Evidence likewise suggests joint-decision making for married faculty in terms of retirement dates coordination. In particular, married faculty members are less likely to consider phased retirement, and more likely not to consider phased retirement. Given that the average age of the faculty is 58 while the spouses' average age is 56, this close age difference between the couple and less inclination to consider phased retirement signifies a preference for full retirement to commence at approximately the same time for both the couple.

As for the economic variables, this study suggests two things. First, higher retirement wealth reduces the probability that a faculty is uncertain about phased retirement, while a higher current income reduces the likelihood that a faculty will participate in phased retirement. Second, the effects are quite small. These results could be interpreted to imply that overall financial ability to retire is important in the decision to enter phased retirement and at the same time, for this group of faculty, overall retirement wealth is not quite up to their reservation wealth, the level of wealth where a faculty would be indifferent between working and retiring.

The most significant variables relative to all the four phased retirement decision options are the job related factors. Ceteris paribus, faculty members who are satisfied with the overall progress of their academic career are 12.7% more likely to consider phased retirement, 7.5% less likely not to consider phased retirement and 5.5% less likely to be uncertain about phased retirement. Career satisfaction can encompass a variety of factors including general attitude towards work (intrinsic value of work other than the monetary benefits it provides) and job match (both in terms of the work itself and compatibility with coworkers). The fact that career satisfaction raises the probability of phased retirement implies preference for easing into retirement as opposed to full retirement right away. Longer tenure also increases the odds for participation in phased retirement while decreasing the chance for considering phased retirement. Finally, we find evidence that the value of phased retirement is lower for faculty in predominantly teaching institutions. This contradicts results from the UNC system where Allen, et. al (2004) found the value of phased retirement to be higher for teaching institutions.

From an academic institution's perspective, our results are useful in terms of having identified the factors that can significantly influence retirement behavior of a faculty member, particularly relative to the phased retirement decision. If phased retirement is being used as a tool to provide a smooth transition in replacing a large cohort of senior faculty, our results seem to indicate it is working.

Our study may also provide some perspectives as to the likely retirement decisions of faculty given the recent adverse financial events that have severely affected the value of retirement portfolios. Our data was collected in 2003, a period close to the end of an economic downturn although not quite as severe as the current downturn. This makes the results of this study also applicable to the current situation. Adverse financial market performance over the last few years, and the overall economic downturn have likely raised the value of phased retirement to both the

academic institution and the faculty. Those who are close to full retirement may find phased retirement a more attractive option given the likely reductions in their retirement portfolios. The 5-year maximum period for phased retirement may just provide the time necessary to either readjust retirement portfolio allocations or adjust post retirement options and standard of living. Academic institutions can likewise utilize phase retirement to minimize the adverse effects of the costs reductions necessitated by state budget cuts on higher education. Phased retirement can help manage costs and may provide the flexibility needed to meet program needs.

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ENDNOTES

[1] See Switkes (2001) for a description and assessment of a "window plan" instituted by the University of California system in response to a budget crisis in the early 1990s.

[2]The institutions in the Keefe (2001) sample had lump sum payments that range from 40% to 200% of final salary in private schools and 12% to 100% in public schools.

[3]Hassan and Lawrence, 2007; Vickerstaff, 2006; Hakola and Uusitalo, 2005; Schacklock and Brunetto, 2005; Bulmash, et. al., 2002; Joo and Pauwels, 2002; and Lumsdaine, 1995.

[4] Parker, et. al., 2005; and Bahrami, 2001.

[5]Chen and Scott, 2006 provide an extensive summary of studies on partial and/or phased retirement; Gowan, 1998; Bazzoli, 1985; and Bould, 1980.

[6]The universities surveyed included: University of Kansas, Kansas State University, Wichita State University, Emporia State University, Fort Hays State University and Pittsburgh State University. Sample size after data filtering was 628.

[7]Regents faculty rated, in rank order, financial ability to retire, "state of health", and more leisure time/time for family as the most important influences on the decision of when to retire.

[8]LIMDEP is used for all the estimations. Marginal effects are computed at the sample averages of the $X_{i's}$ in the model. The marginal effects are the partial derivatives of the probabilities with respect to the vector of explanatory variables.

[9]This model was not selected as the final model because of the cost in terms of degrees of freedom. The results from this model did not differ significantly from the final model presented with the exception of loss of significance for some variables due to a relatively small sample size relative to the parameter estimates for the entire model.