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To cite this article: Guang Yang, Masood Abdulla Badri, Layla Abdulaziz Alhyas, Asma Salem Al Rashdi, Khawla Saleh Abdulrahman & Shama Khaled Al Kaabi (2022): Retiring Unprepared in Abu Dhabi? Predicting Emirati Employees' Retirement Age and Self-Activation, Journal of Aging & Social Policy, DOI: [10.1080/08959420.2022.2134692](https://doi.org/10.1080/08959420.2022.2134692)

To link to this article: <https://doi.org/10.1080/08959420.2022.2134692>



Published online: 15 Oct 2022.



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# Retiring Unprepared in Abu Dhabi? Predicting Emirati Employees' Retirement Age and Self-Activation

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## ABSTRACT

The topic of retirement is rarely explored in the context of the Middle Eastern and Gulf Cooperation Council (GCC) countries. This study drew on data from a large-scale survey of retirees in the Emirate of Abu Dhabi, the United Arab Emirates (UAE), a universal welfare state characterized by the persistence of the traditional male-breadwinner model and gender roles, to analyze the determinants of retirement timing and post-retirement work. Multi-level regressions were performed to explore the effects of individual, family, institutional, and social-economic factors. The study revealed that Emirati females tended to retire earlier than men to fulfill their domestic duties and informal caregiving roles, rather than to retire together with their spouse. Additionally, early retirement incentives offered by Abu Dhabi pension systems appeared to attract employees into early retirement. On the other hand, securing more financial resources and reduced sense of belonging in society were among the most significant predictors of post-retirement job searching motivations among Emirati retirees.

## ARTICLE HISTORY

Received 9 July  
Accepted 8 March 2022

## KEYWORDS

Abu Dhabi; Emirati retirees;  
early retirement; post-  
retirement work; pension  
reform; self-activation

## Introduction

Recent decades have witnessed a reduction in generous pension systems, an increase in statutory retirement age, a shift from defined benefit to defined contribution plans, and the introduction of active aging measures, all of which aimed to delay work–retirement transitions and offer fiscal reliefs to pension systems (Ebbinghaus, 2015; Walker & Maltby, 2012). As for individual retirement decisions, there are a variety of contributing factors and, hence, diverse individual retirement pathways (De Wind et al., 2014). While many studies examined individuals' intention to retire or used a psycho-social measure as the dependent variable (Damman et al., 2015; Oakman & Wells, 2013), this should not be equated with the actual retirement action (Krijnen et al., 2018). Observing individuals' intention to action gap in retirement requires an in-depth analysis of factors contributing to the decision. More importantly, the role of national policy and institutional contexts that may shape employees'

retirement timing need to be underscored (Baumann & Madero-Cabib, 2021; Walker & Maltby, 2012).

While the influence of welfare policies on retirement and the general predictors of retirement have been widely discussed in the European and North American contexts, very limited research has been conducted in the Middle East and the Gulf Cooperation Council (GCC) region, except for a few descriptive analyses of retirees (Diaw, 2018; R.M. Al-Khraif et al., 2019). Given the distinct socio-economic milieus in the Middle East, empirical studies conducted in other socio-economic contexts and theories linking the variation of social policies to developmental strategies may not adequately explain the development of welfare regimes across the Middle East (Cammett & Sasmaz, 2016; Iversen & Stephens, 2008), nor could they shed light on the future directions that welfare policies in the Middle East would move toward (Turner & Lichtenstein, 2002).

Drawing on the results of a large-scale retiree survey conducted in the Emirate of Abu Dhabi, the United Arab Emirates (UAE), this research aims to identify the key variables that predict the retirement age of Emiratis and examine factors influencing a retiree's actions search for (or consider) employment post retirement. Through exploring actual retirement age and retirees' job searching actions, the current research attempts to present retirement trajectories related analysis in a socio-economically and demographically distinct context as well as discusses retirement and pension policies in a broader context of the welfare regime in which they are embedded. This research, thus, contributes to literature on retirement and pensions, as well as to literature on institutional change on retirement actions.

## Literature review

An increasingly large proportion of today's labor force is comprised of older workers (Organization for Economic Co-operation and Development (OECD), 2017). From a standard labor supply perspective, an individual decides the timing of retirement based on the cost-benefit analysis of retirement with a view to maximizing one's lifetime utility, subject to a wealth constraint (Fields & Mitchell, 1984). Rather than narrowly focusing on the idealized calculation of the relative price of retirement leisure, a more accommodating analytical framework for retirement or later-life employment is articulated by the life course theory (Dewilde, 2003; De Wind et al., 2014), which posits that a range of multi-dimensional aspects influence people's life paths and that older adults' decision to retire or to engage in post-retirement work has financial, familial, subjective, and social interdependence (Liebermann et al., 2013; De Wind et al., 2014). In the literature, predictors of retirement and post-retirement employment are usually classified into individual, organizational, and institutional factors, which may either force

or attract individuals to leave or rejoin the labor market (Barbosa et al., 2016; Schmidhuber et al., 2021).

Among individual factors, personal financial resources, such as wealth and labor income, influence the decision and timing of retirement (Mein et al., 2000). Many studies have demonstrated a correlation between financial status and retirement intentions. For example, some studies revealed that a lower likelihood of retirement is linked to a low level of income, a higher level of debt, and more severe economic hardships (Mein et al., 2000; De Wind et al., 2014). However, individuals with greater wealth are less likely to engage in post-retirement employment (Burkert & Hochfellner, 2017).

Health is another key predictor in retirement decision. Poor health is likely to result in an early withdrawal from the labor force and poor self-reported health also constitutes an important consideration in retirement planning (Topa et al., 2009; De Wind et al., 2014). The results presented by Rhee et al. (2016) showed a direct negative association between self-rated health and the transition to involuntary retirement in addition to an indirect negative relationship between mental health and the perception of less financial control. McGarry (2004) further suggested that changes in health appear to have larger effects on retirement expectations than those of income or wealth.

Retirement decisions also appear to have gender and family connotations (Loretto & Vickerstaff, 2013; De Wind et al., 2014). Women have a higher likelihood than men to choose to retire, and couples tend to retire at the same time for shared leisure (Dentinger & Clarkberg, 2002; Lee, 2005; De Wind et al., 2014). Trucchi et al.'s (2018) study of Italian retirees showed that family composition affected retirees' labor decisions (trajectory) and the effect was gendered and varied according to marital status as well. In Hong Kong, people who had a working spouse were less likely to retire, whereas older female workers living with married children were more likely to retire (Lee, 2005). However, Galkutė and Herrera's (2020a) analysis suggested that older Chilean women who had fewer work opportunities throughout their life were more interested in finding a job after legal retirement age.

Research evidence on the relationship between education and work after retirement remains inconclusive. While some studies have revealed a positive association between education level and engagement in post-retirement employment (Trucchi et al., 2018), such a relationship is insignificant in some other research (Fasbender et al., 2016).

Some personality traits and psychosocial factors are also considered important dimensions of retirement and employment after retirement (Davies & Cartwright, 2011; Wang & Shi, 2014); for example, attitude toward early retirement (Munnell et al., 2018). Sewdas et al. (2017) suggested the importance of purpose in life as a motive for working beyond retirement age. Kerr and Armstrong-Stassen (2011) opined that there were different psychosocial

needs between retirees who opted for entrepreneurship and for wage employment.

Organizational and institutional factors influence individual's ability to exercise rational choice (North, 1990). Research on retirement in recent years has directed the attention to the concepts of decision-making and adjustment process, which entail the analysis of organizational and institutional factors. With regard to organization and job-related factors, empirical research indicated that employees who exhibit a high level of job satisfaction and organizational commitment are more likely to retire late (Mein et al., 2000). In general, workers with little job autonomy, low-skill jobs, and poor working conditions are found to have a higher probability of exiting the labor force prematurely (Beehr et al., 2000). Analysts also pinpoint the implications of older adults' exit mechanisms, as post-retirement life conditions largely depend on whether retirement is voluntary or involuntary (Dorn & Sousa-Poza, 2010).

Institutional context reflected in national pension and social security policies and regulations shape employees' retirement decisions and timing (Hofäcker et al., 2016; Schmidhuber et al., 2021). Features of national pension systems, such as generosity and early exit possibilities, are likely to influence retirement planning and retirement expectations (Coile & Gruber, 2007). Using a trajectory approach, Baumann and Madero-Cabib (2021) found different patterns of labor force participation among older adults in Sweden, Denmark, Chile, and the US, due to the different welfare regimes. Individuals also tend to postpone their expected date of retirement according to changes of the statutory retirement age (Hess, 2017). One example of this is in Germany, where Coppola and Wilke's (2014) analysis showed individuals adjusted their retirement expectations during the 2007 German pension reform when the statutory retirement age increased from 65 to 67.

Aside from institutional and organizational factors, there are other macro-level socio-economic conditions at play. For instance, Axelrad's (2018) study of 20 European countries showed that early retirement was more likely to occur in countries with a lower gross domestic product (GDP), while late retirement was more commonly observed in countries that had a higher GDP and high unemployment rates. Sector-wise, early retirement is more prevalent in the public sector than in the private sector, in part because defined benefit pension plans with early retirement incentives are more common in the public sector (Drobnic, 2002). Social approval is also considered a facilitating predictor of post-retirement planning (Wöhrmann et al., 2014), and transforming the passive welfare dependency often requires the change of the deep-rooted norm of an appropriate retirement age (Van Dam et al., 2009).

Taken together, literature review suggests that decisions about retirement and post-retirement work are complex and manifold (Fisher et al., 2016). Retirement and post-retirement work as labor market behaviors among

older people are influenced by a myriad of elements including individual circumstances, organizational characteristics, country policy environment and social security regulations, as well as the wider socio-economic context (Burkert & Hochfellner, 2017; Fasbender et al., 2016). Nevertheless, findings on the role of socio-economic factors including education and various economic resources as predictors of retirement have been mixed (Galkutė & Herrera, 2020b). This appears to highlight the significant moderating role of the organizational and nation-specific institutional context in influencing both retirement timing and post-retirement work (Hofäcker, 2015).

### The empirical context

Since the late 1980s, increasing concerns about the financial sustainability of social security systems, together with the demographic aging of the population, have pushed many countries to adjust or end policies that encouraged early retirement (Ebbinghaus & Hofäcker, 2013). Overall, enhancing efficiency and privatization have been the main features of most pension and social security reforms (Moran, 2000). Hence, more occupational and private pensions with multi-pillar systems for financing have been introduced, indicating a shift of some social protection responsibility from the state to individuals or social partners (Gilbert, 2002).

In the shadow of the global economic downturn after 2010 and the drop in oil prices in 2015, the economy of the Emirate of Abu Dhabi has managed to record positive growth in recent years. According to the estimates by Statistics Center Abu Dhabi (2020), Abu Dhabi's GDP at constant prices was USD 217,100 million in 2018 compared to USD 209,700 million in 2015, resulting in an average annual growth rate of 1.2% from 2015 to 2018. Abu Dhabi's population was estimated to be 2.9 million in 2016, of which only 19.0% were Emirati citizens. As with many countries in the Middle East, Abu Dhabi has relatively high birth rates, especially for its Emirati population. The 2019 crude birth rates were 14.5 births per 1,000 for the population as a whole and 27.5 for Emiratis, which was dropped from 31.2 in 2010 (Statistics Center Abu Dhabi, 2020). Abu Dhabi's Emirati population, therefore, has a considerably young age structure, as the 0–14 and 15–64 age cohorts constitute 38.5% and 59.3%, respectively, of the Emirati population. Meanwhile, Abu Dhabi citizens' life expectancy gradually increased from 77.3 in 2016 to 78.3 in 2019 (Statistics Center Abu Dhabi, 2020).

In Abu Dhabi, the statutory retirement age for Emirati citizens is set at 60 for men and 55 for women. Emiratis working in government and private sectors are eligible for pensions and other retirement benefits after reaching the retirement age of 49 or after serving for a minimum of 20 years. Two main pension funds in Abu Dhabi provide pension and benefits to civilian retirees. The first being the Abu Dhabi Retirement Pension & Benefits Fund was founded in 2000 to manage pensions and end-of-service benefits for

Emiratis working in or retired from the government and private sectors in the Emirate of Abu Dhabi. The second pension fund, the General Pension & Social Security Authority (established in 1999), is a federal agency mandated to apply the pension and retirement benefits for Emiratis working in or retired from federal entities, local governments of Dubai and the Northern Emirates, private sector as well as entrepreneurs and self-employed. Both pension funds are defined benefit plan or pay-as-you-go (PAYG) scheme offering relatively high replacement rate with a low contribution rate from employees. Emiratis are required to pay 5% of their monthly salary toward the pension, while the employer contributes 15% of the monthly salary and the amount of 6% of the monthly salary is allocated from the budget of the Emirate, totaling a monthly contribution of 26%. The retirement pension is calculated on a monthly basis at 48% of the salary for the first 15 years of contribution to the fund and increases by 3.2% for each subsequent year, with a maximum limit of 80%. As noted by Arab Monetary Fund & World Bank Group (2017), pension spending in Abu Dhabi is high due to the generosity of the schemes, high numbers of survivors, and early retirement programs.

Abu Dhabi does not fit neatly in Esping-Andersen's (1990) welfare models, as it has its own characteristics integrating some elements from both the Conservative and the Social Democratic models. With a tax-free income, free health care, free education, and generous retirement plans, Emiratis are entitled to extensive social benefits and services. Such a universal welfare system, in which the government assumes the main responsibility as a provider of welfare state benefits, has been developed with a view to offering Emiratis lifetime aid coincided with the transformation of the Emirate into a knowledge society. While the state takes a central role in welfare provisions, family continues to play an essential role in social support and acts as a key place of solidarity. Recent research conducted in Abu Dhabi revealed that family and social connections significantly affect people's well-being (Badri et al., 2021; Al Bahar et al., 2021). The traditionally intensive familial ties remain strong in Arab and the Middle Eastern countries, where older adults rely on family (immediate or extended) and social networks for informal care (Barakat, 1993).

Abu Dhabi as a universal welfare state also has to be understood in the contexts of an economy heavily relying on foreign labor, the imbalance of composition of Emiratis and expatriates in the population, and rapid socio-economic transformation (Yang et al., 2021). Recently, Abu Dhabi has started to move toward introducing new income-based benefits for its Emirati citizens to encourage them to work beyond the 49 year old or minimum 20 years of service eligibility, with a view to increasing the sustainability of the pension system. Recent years have also seen new social programs being offered to help high-risk groups, more means-tested mechanisms being adopted, and policy direction toward gradual cutbacks in passive benefits, which coincide with international developments.

## Methods

A survey of Emirati retirees was conducted in 2019 to examine the retirement life trajectories of the target sample in Abu Dhabi, especially during the pre- and post-retirement phases. The survey and the participant consent protocol were developed in English and translated into Arabic, followed by a review panel of experts and researchers from the Abu Dhabi Department of Community Development and the Abu Dhabi Retirement Pension & Benefits Fund. The survey was sent to more than 30,000 retirees registered with both pension providers in Abu Dhabi. Survey participants were informed about the objectives of the survey and guaranteed anonymity. Data collection occurred from September to December 2019, with a recorded response rate of 28.5%. For the purpose of this study, military retirees were excluded from the analysis. The final dataset contained 2,662 Emirati civilian retirees registered with the Abu Dhabi Retirement Pension & Benefits Fund and the General Pension & Social Security Authority.

A brief description of the demographic profile of the retirees in the sample is as follows: males accounted for 54.2% and females 45.8%; the vast majority (85.6%) are married; the largest single category of retirees (42.2%) had a bachelor's degree; the average age of respondents is 55.1, and the average retirement age of retirees is 47.6.

Based on the literature review, a number of variables were selected from the survey for analysis. Retirement age (categorical) and post-retirement job searching (dichotomized) were taken as the dependent variables ([Table 1](#)). Binary variables included gender, living with children or not, being a caregiver or not, employment status of spouse, nature of retirement (voluntary or involuntary), having a retirement plan, having a financial plan before retirement, having other source of income, and having debt. Education, marital status, and sector of employment before retirement were included as categorical variables. In addition, three items were used to measure the psycho-social status of retirees on a 5-point Likert scale from 1 (never) to 5 (always): feeling lonely, feeling dependent on others, and feeling life has little purpose.

In the literature, macro-economic variables such as GDP per capita and unemployment rate are usually controlled for. However, Abu Dhabi's official statistics does not provide such indicators at the region level. Two region-level indicators – old-age dependency ratio and labor force participation rate – were computed from official statistics. The old-age dependency ratio is the percentage of people aged 65 and above in the working-age population. The labor force participation rate is calculated as the labor force divided by the working-age population. Retiree's reported level of satisfaction with pension was taken as an indicator to account for potential institutional differences between the two main pension funds in Abu Dhabi.

Due to its capacity to avoid aggregation bias and the advantage of complying with statistical assumptions about independence of observations,

**Table 1.** Variables.

| Variable                               | Question item(s) and coding                                                                                                                                                                                                           |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Retirement age                         | "At what age did you retire?": 1 = less than 30, 2 = 30–34, 3 = 35–39, 4 = 40–44, 5 = 45–49, 6 = 50–54, 7 = 55–59, 8 = 60–64, 9 = 65 and above                                                                                        |
| Post-retirement job searching          | "Have you searched for a work opportunity after you retired?": 1 = searched for job, 2 = did not search for job                                                                                                                       |
| Gender                                 | "What is your gender?": 1 = female, 0 = male                                                                                                                                                                                          |
| Education                              | "What is the highest educational qualification that you have completed?": 1 = below high school, 2 = high school, 3 = post high school diploma, 4 = bachelor's degree, 5 = higher diploma, 6 = master's degree, 7 = doctorate degree  |
| Marital status                         | "What is your marital status?": 1 = single, 2 = married, 3 = divorced, 4 = widowed, 5 = separated                                                                                                                                     |
| Spouse in employment                   | "Please select your spouse's status.": 1 = employed (fulltime, part-time, self-employed), 0 = retired or not in labor force                                                                                                           |
| Caregiver                              | "Are you currently a caregiver?": 1 = no, 0 = yes                                                                                                                                                                                     |
| Living with children                   | "Do any of your children live with you?": 1 = no, 0 = yes                                                                                                                                                                             |
| Sector of employment before retirement | "Please specify the sector of your employment before retirement." 1 = local government, 2 = federal government, 3 = private sector, 4 = semi-government, 5 = other.                                                                   |
| Voluntary or involuntary retirement    | "What was the main reason for your retirement?": 1 = voluntary (I chose to retire once reaching the retirement age), 2 = involuntary (I was asked to retire by employer once reaching the retirement age; I had health issues; Other) |
| Financial plan before retirement       | "Did you have a financial plan for your retirement?": 1 = no, 0 = yes                                                                                                                                                                 |
| Plan for retirement                    | "Did you plan for your retirement?": 1 = no, 0 = yes                                                                                                                                                                                  |
| Other source of income                 | "Do you have other sources of income?": 1 = yes, 0 = no                                                                                                                                                                               |
| Debt                                   | "Do you have debts and/or loans?": 1 = yes, 0 = no                                                                                                                                                                                    |
| Feeling lonely                         | "Since you retired, how often did you feel lonely?": 1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always                                                                                                                      |
| Feeling dependent on others            | "Since you retired, how often did you feel dependent on others?": 1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always                                                                                                         |
| Feeling life has little purpose        | "Since you retired, how often did you feel life has little purpose?": 1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always                                                                                                     |
| Satisfaction with pension              | "How satisfied are you about the pension?": 1 = extremely dissatisfied, 2 = somewhat dissatisfied, 3 = Neither satisfied nor dissatisfied, 4 = somewhat satisfied, 5 = extremely satisfied                                            |

multilevel modeling has often been used in cross-country analysis of retirement to account for country-level differences in labor market conditions, pension and social security regulations, and the national policy environment (Axelrad, 2018; Hershey et al., 2010). Although this study is a single country analysis, there may be substantial regional and institutional variance within a country that needs to be accounted for. Therefore, multi-level modeling was used to identify the most important predictors of retirement age and post-retirement job searching activities of Abu Dhabi retirees. A three-level model was built, in which 2,662 retirees (level 1) were nested in 3 regions (level 2), which were nested in 2 pension funds (level 3) at the emirate level. The models were fitted using MLwiN 2.30 (Rasbash et al., 2012).

## Results

The output of the model for retirement age indicates a low degree of data clustering, as between-pension-system variance is very small and between-region variance is close to 0. Nevertheless, the log-likelihood test statistics and

associated p-values favor the three-level model over the single-level model ( $X^2_{2=37.443, P < 0.001}$ ) and the two-level individuals-within-regions model ( $X^2_{1=11.684, P < 0.001}$ ). The three-level model does not offer a better fit to the data than the two-level individuals-within-pension system model. Variation partition coefficients suggest that 97.8% of the variance in retirement age lies within district among individuals. Individuals residing in the same region are more homogenous than individuals in other regions, while individuals registered with one pension fund are not more homogenous compared to those with the other pension fund.

Comparing the models for retirement age in [Table 2](#), adjusting individual characteristics reduces the retiree-level variance by 23.4%. The likelihood ratio test confirms that the inclusion of individual-level variables, region-level demographic, and economic variables significantly improved the fit of the model. Looking at the fixed effects of the models, having a financial plan before retirement, having a plan for retirement, having other sources of income, and labor force participation rate have no effect on retirement age.

The survey data suggest that most Emiratis retired when they became eligible for pension or reached the early retirement age of 49. The most significant predictors of retirement age include gender, education level, spouse employment status, sector of employment before retirement, nature of retirement, and old-age dependency ratio. The average retirement age for men is 50.4 and 44.2 for women, indicating that Emirati women retired at much younger ages than Emirati men. Acting as a caregiver and living with children contributed (to some extent) to the prediction of retirement age, as those who were caregivers retired nearly 2 years later than those who were not caregivers, and those who lived with their children retired earlier than those who did not live with their children. Al Ain region, where the old-age dependency ratio is the highest among the three regions of Abu Dhabi Emirate, has seen its Emirati citizens retiring nearly 5 years earlier than citizens of Al Dhafra region.

The survey data show that as high as 43.4% of retirees in the sample had searched for jobs after their retirement. [Table 3](#) shows that Abu Dhabi retirees' post-retirement job searching activity is affected significantly by a range of personal, family factors, as well as post-retirement psychosocial status. The most significant predictors include gender, marital status, education, having a retirement plan, having debt, frequency of feeling lonely after retirement, and level of satisfaction with pension. In other words, Abu Dhabi retirees who did not plan for retirement, who had debt or loans, and who more frequently felt lonely after retirement were more likely to seek post-retirement employment. Furthermore, those who were satisfied with the pension were less likely to return to the labor market; retirees with a higher educational qualification had a higher tendency to search for jobs after retirement.

**Table 2.** Three-level models for retirement age.

| Parameter                                                        | Model 1    |       | Model 2   |       | Model 3   |       | Model 4   |       |
|------------------------------------------------------------------|------------|-------|-----------|-------|-----------|-------|-----------|-------|
|                                                                  | Estimate   | S.E.  | Estimate  | S.E.  | Estimate  | S.E.  | Estimate  | S.E.  |
| Fixed Part                                                       |            |       |           |       |           |       |           |       |
| Cons                                                             | 5.056 **   | 0.119 | 6.434 **  | 0.202 | 6.620 **  | 0.179 | 6.757 **  | 0.203 |
| Female (ref. Male)                                               |            |       | −1.291 ** | 0.092 | −1.276 ** | 0.101 | −1.329 ** | 0.111 |
| Spouse in employment (ref. Spouse retired or not in labor force) |            |       | −0.607 ** | 0.097 | −0.571 ** | 0.105 | −0.506 ** | 0.112 |
| Not living with children (ref. Yes)                              |            |       | 0.411 *   | 0.192 | 0.398 *   | 0.206 | 0.324     | 0.226 |
| Not a caregiver (ref. Yes)                                       |            |       | −0.150 *  | 0.077 | −0.222 ** | 0.083 | −0.260 ** | 0.091 |
| High school (ref. Below high school)                             |            |       | −0.626 ** | 0.138 | −0.604 ** | 0.149 | −0.523 ** | 0.167 |
| Diploma                                                          |            |       | −0.355 ** | 0.147 | −0.349 *  | 0.159 | −0.344 *  | 0.182 |
| Bachelor                                                         |            |       | −0.260 *  | 0.116 | −0.262 *  | 0.124 | −0.293 *  | 0.139 |
| High diploma                                                     |            |       | −0.332 *  | 0.182 | −0.333    | 0.201 | −0.398 *  | 0.220 |
| Master                                                           |            |       | −0.181    | 0.176 | −0.253    | 0.190 | −0.265    | 0.210 |
| PhD                                                              |            |       | 0.232     | 0.272 | 0.114     | 0.289 | 0.051     | 0.321 |
| Federal gov. (ref. Local gov.)                                   |            |       | −0.421 ** | 0.109 | −0.458 ** | 0.101 | −0.452 ** | 0.113 |
| Private sector                                                   |            |       | −0.377 *  | 0.227 | −0.243    | 0.296 | −0.461    | 0.316 |
| Semi-government                                                  |            |       | −0.133    | 0.101 | −0.124    | 0.110 | −0.186    | 0.122 |
| Other                                                            |            |       | −0.413 ** | 0.157 | −0.286 *  | 0.171 | −0.346 *  | 0.186 |
| Voluntary retirement (ref. Involuntary)                          |            |       | −0.234 ** | 0.086 | −0.318 ** | 0.093 | −0.353 ** | 0.101 |
| No financial plan before retirement (ref. Yes)                   |            |       | −0.209    | 0.133 | −0.177    | 0.143 | −0.199    | 0.155 |
| Did not plan for retirement (ref. Yes)                           |            |       | 0.029     | 0.102 | 0.009     | 0.115 | 0.026     | 0.126 |
| Having other source of income (ref. No)                          |            |       | 0.119     | 0.102 | 0.082     | 0.110 | 0.034     | 0.123 |
| Old-age dependency ratio                                         |            |       |           |       | −1.249 *  | 0.695 | −1.951 ** | 0.781 |
| Labor force participation rate                                   |            |       |           |       | −0.079    | 0.107 | −0.179    | 0.122 |
| Somewhat dissatisfied (ref. Very dissatisfied)                   |            |       |           |       |           |       | 0.080     | 0.111 |
| Neither satisfied nor dissatisfied                               |            |       |           |       |           |       | −0.118    | 0.140 |
| Somewhat satisfied                                               |            |       |           |       |           |       | 0.014     | 0.172 |
| Extremely satisfied                                              |            |       |           |       |           |       | −0.122    | 0.374 |
| Random Part                                                      |            |       |           |       |           |       |           |       |
| Pension system variance                                          | 0.079      | 0.053 | 0.076     | 0.051 | 0.000     | 0.000 | 0.000     | 0.000 |
| Region variance                                                  | 0.000      | 0.000 | 0.000     | 0.000 | 0.000     | 0.000 | 0.000     | 0.000 |
| Individual variance                                              | 3.517      | 0.097 | 2.695     | 0.087 | 2.744     | 0.094 | 2.643     | 0.100 |
| −2*log-likelihood:                                               | 10,910.917 |       | 7456.724  |       | 6609.650  |       | 5287.752  |       |
| Units: Pension system                                            | 8          |       | 8         |       | 6         |       | 6         |       |
| Units: Region                                                    | 8          |       | 8         |       | 6         |       | 6         |       |
| Units: Individual                                                | 2661       |       | 1944      |       | 1718      |       | 1388      |       |

\*\* significant at 0.01; \* significant at 0.05; one-tailed hypothesis.

Variables grand mean centered.

## Discussion

The main research objective of the current study is to examine whether and to what extent individual attributes as well as social, family, and institutional factors affect retirement timing. The findings are generally consistent with previous studies showing that females are more likely to retire earlier than men to take domestic responsibilities (Dentinger & Clarkberg, 2002; Lee, 2005; De Wind et al., 2014), and that people are often motivated to work longer in order to secure more financial resources needed before retirement (Mein et al., 2000). Similarly, low level of education, which is often linked with low pay, is associated with lower chances of early retirement. This indirectly

**Table 3.** Three-level models for post-retirement job searching.

| Parameter                                           | Model 1  |       | Model 2   |       | Model 3   |       | Model 4   |       |
|-----------------------------------------------------|----------|-------|-----------|-------|-----------|-------|-----------|-------|
|                                                     | Estimate | S.E.  | Estimate  | S.E.  | Estimate  | S.E.  | Estimate  | S.E.  |
| Fixed Part                                          |          |       |           |       |           |       |           |       |
| Cons                                                | 1.569 ** | 0.019 | 1.925 **  | 0.092 | 1.943 **  | 0.099 | 1.872     | 0.102 |
| Female (ref. Male)                                  |          |       | 0.167 **  | 0.028 | 0.156 **  | 0.031 | 0.174 **  | 0.032 |
| Age                                                 |          |       | 0.012 **  | 0.001 | 0.012 **  | 0.001 | 0.012 **  | 0.001 |
| Number of years after retirement                    |          |       | −0.007 ** | 0.002 | −0.007 ** | 0.002 | −0.007 ** | 0.002 |
| Married (ref. Single)                               |          |       | −0.249 ** | 0.076 | −0.269 ** | 0.082 | −0.275 ** | 0.081 |
| Divorced                                            |          |       | −0.315 ** | 0.081 | −0.318 ** | 0.087 | −0.332 ** | 0.087 |
| Widowed                                             |          |       | −0.208 *  | 0.097 | −0.254 ** | 0.105 | −0.266 ** | 0.107 |
| Separated                                           |          |       | −0.125    | 0.116 | −0.136    | 0.124 | −0.135    | 0.123 |
| Not living with children (ref. Yes)                 |          |       | −0.058    | 0.047 | −0.071    | 0.051 | −0.084 *  | 0.051 |
| Not a caregiver (ref. Yes)                          |          |       | 0.044 *   | 0.022 | 0.047 *   | 0.023 | 0.039 *   | 0.023 |
| High school (ref. below high school)                |          |       | −0.061    | 0.040 | −0.058    | 0.043 | −0.052    | 0.044 |
| Diploma                                             |          |       | −0.096 *  | 0.042 | −0.081 *  | 0.047 | −0.092 *  | 0.047 |
| Bachelor                                            |          |       | −0.100 ** | 0.034 | −0.078 *  | 0.037 | −0.088 ** | 0.037 |
| High diploma                                        |          |       | −0.161 ** | 0.052 | −0.146 ** | 0.057 | −0.187 ** | 0.058 |
| Master                                              |          |       | −0.199 ** | 0.051 | −0.191 ** | 0.055 | −0.211 ** | 0.055 |
| PhD                                                 |          |       | −0.462 ** | 0.078 | −0.445 ** | 0.083 | −0.436 ** | 0.084 |
| Federal gov. (ref. Local gov.)                      |          |       | 0.048 *   | 0.027 | 0.048 *   | 0.029 | 0.036     | 0.029 |
| Private sector                                      |          |       | −0.083    | 0.061 | −0.070    | 0.080 | −0.074    | 0.079 |
| Semi-government                                     |          |       | −0.001    | 0.029 | −0.002    | 0.032 | −0.007    | 0.032 |
| Other                                               |          |       | −0.053    | 0.042 | −0.057    | 0.046 | −0.060    | 0.047 |
| Did not plan for retirement (ref. Yes)              |          |       | −0.104 ** | 0.030 | −0.125 ** | 0.033 | −0.118 ** | 0.033 |
| No financial plan before retirement (ref. Yes)      |          |       | 0.027     | 0.038 | 0.054     | 0.041 | 0.074     | 0.041 |
| Voluntary retirement (ref. Involuntary)             |          |       | 0.091 **  | 0.024 | 0.083 **  | 0.026 | 0.077 **  | 0.027 |
| Having other source of income (ref. No)             |          |       | 0.003     | 0.029 | −0.008    | 0.032 | −0.001    | 0.032 |
| Having debt (ref. No)                               |          |       | 0.119 **  | 0.024 | 0.102 **  | 0.026 | 0.103 **  | 0.026 |
| Rarely feeling lonely (ref. Never)                  |          |       | −0.071 *  | 0.034 | −0.062 *  | 0.036 | −0.066 *  | 0.037 |
| Sometimes feeling lonely                            |          |       | −0.146 ** | 0.029 | −0.134 ** | 0.030 | −0.144 ** | 0.031 |
| Often feeling lonely                                |          |       | −0.207 ** | 0.038 | −0.207 ** | 0.040 | −0.210 ** | 0.041 |
| Always feeling lonely                               |          |       | −0.221 ** | 0.049 | −0.216 ** | 0.052 | −0.219 ** | 0.053 |
| Rarely feeling dependent on others (ref. Never)     |          |       | 0.011     | 0.033 | 0.021     | 0.036 | 0.017     | 0.036 |
| Sometimes feeling dependent on others               |          |       | −0.064 *  | 0.034 | −0.068 *  | 0.035 | −0.064 *  | 0.036 |
| Often feeling dependent on others                   |          |       | −0.109 *  | 0.048 | −0.119 ** | 0.051 | −0.099 *  | 0.051 |
| Always feeling dependent on others                  |          |       | −0.117 *  | 0.059 | −0.137 *  | 0.065 | −0.108    | 0.067 |
| Rarely feeling life has little purpose (ref. Never) |          |       | 0.020     | 0.033 | 0.018     | 0.034 | 0.022     | 0.035 |
| Sometimes feeling life has little purpose           |          |       | −0.049    | 0.036 | −0.052    | 0.040 | −0.064    | 0.040 |
| Often feeling life has little purpose               |          |       | 0.022     | 0.053 | 0.025     | 0.056 | 0.015     | 0.057 |
| Always feeling life has little purpose              |          |       | −0.030    | 0.057 | −0.045    | 0.062 | −0.036    | 0.062 |
| Old-age dependency ratio                            |          |       |           |       | 0.013     | 0.204 | 0.049     | 0.211 |
| Labor force participation rate                      |          |       |           |       | 0.002     | 0.032 | 0.003     | 0.033 |
| Somewhat dissatisfied (ref. Very dissatisfied)      |          |       |           |       |           |       | 0.056 *   | 0.030 |
| Neither satisfied nor dissatisfied                  |          |       |           |       |           |       | 0.059     | 0.038 |
| Somewhat satisfied                                  |          |       |           |       |           |       | 0.111 **  | 0.047 |
| Extremely satisfied                                 |          |       |           |       |           |       | 0.335 **  | 0.104 |
| Random Part                                         |          |       |           |       |           |       |           |       |
| Pension system variance                             | 0.001    | 0.001 | 0.000     | 0.000 | 0.000     | 0.000 | 0.000     | 0.000 |
| Region variance                                     | 0.000    | 0.000 | 0.000     | 0.000 | 0.000     | 0.000 | 0.000     | 0.000 |
| Individual variance                                 | 0.245    | 0.007 | 0.203     | 0.007 | 0.204     | 0.007 | 0.199     | 0.007 |
| −2*log-likelihood:                                  | 3323.281 |       | 2316.092  |       | 2040.981  |       | 2032.368  |       |
| Units: Pension system                               | 8        |       | 8         |       | 6         |       | 6         |       |
| Units: Region                                       | 8        |       | 8         |       | 6         |       | 6         |       |
| Units: Individual                                   | 2320     |       | 1862      |       | 1638      |       | 1638      |       |

\*\* significant at 0.01; \* significant at 0.05; one-tailed hypothesis.

Variables grand mean centered.

underscores the importance of financial consideration in retirement decisions (Mein et al., 2000; De Wind et al., 2014).

However, the finding that those who had an employed spouse retired earlier than those whose spouse had already retired or whose spouse was not in labor force contradicts some international evidence that suggests otherwise (Lee, 2005). Rather, this tends to reflect the social norm in Abu Dhabi and in the wider GCC region that males continue to be the primary family breadwinner (R. Al-Khraif et al., 2020), which enables the early exit of females from employment. While the impact of social and demographic changes on Arab family structure should be noted (Abdelmoneium & Alharahsheh, 2016; Al-Kandari & Crews, 2014; El-Haddad, 2003), in Abu Dhabi the traditional, extended family structure has continued to provide the basis for the family support system, in which family members play financial and personal care roles across generations. Another piece of supporting evidence offered by this present study is that the old-age dependency ratio is negatively associated with retirement age – apart from financial factors, family circumstances, individual factors, and social norms, the demographic context has a significant impact on retirement timing in Abu Dhabi. This being said, as argued by El-Haddad (2003), public services in GCC countries have, to some extent, replaced traditional family caring roles. As demographic transition further progresses in the UAE, older people will face various social challenges and will require more from public services (Al Ali, 2013).

Empirical research suggests that the structure of pension schemes influences older people's labor market behaviors and that generous pension schemes contribute significantly to reducing older people's labor force participation (Coile & Gruber, 2007; Organization for Economic Co-operation and Development (OECD), 2006). The findings of this research pinpoint the crucial implications of the pension scheme, most notably its generosity and the early retirement possibilities and incentives, on people's retirement timing (Coile & Gruber, 2007). Abu Dhabi's pension system also encourages early retirement in an effort to address youth unemployment. Currently, Emirati citizens in Abu Dhabi need only 20 years of contributions to qualify for a pension. The patterns of retirement of Emiratis reflect the financial incentives to retire early embedded in public retirement programs (Coile & Gruber, 2007; Raab & Gannon, 2014), where civil servants benefit from generous early retirement arrangements and have a higher pension accrual. The findings of this research are also consistent with the observation of low normal retirement ages among GCC countries (Khan et al., 2017), and therefore confirm the pivotal influence of institutional elements and context, such as national welfare schemes and pension regulations, on employees' retirement decisions and timing (Hofäcker et al., 2016; Schmidhuber et al., 2021).

Evident population changes in the GCC region imply that aging is taking place, which requires GCC countries to reflect on or redesign their old-age

policies and related welfare programs (Hussein & Ismail, 2016; Khan et al., 2017). The future financial sustainability of the current pension scheme in Abu Dhabi, which has been created and developed as part of the universal state welfare to offer Emiratis generous lifetime support, needs to be examined in light of foreseeable demographic and social changes. On the one hand, an increase in the statutory pensionable age, which is still very low in Abu Dhabi compared with many countries in the world where various policies have been introduced to delay work–retirement transitions (Ebbinghaus & Hofäcker, 2013), may be set on Abu Dhabi’s policy agender; this may help Emiratis adjust their retirement expectations. A practical implication of the findings of this research, however, is that while increasing the pensionable age in Abu Dhabi is likely to delay the retirement age of men, it would be less effective for women.

More importantly, a growing number of studies show that the employment rates of older workers are negatively associated with the unemployment rates of young workers and suggest that early retirement is being used as a misleading solution to the youth unemployment problem (Banks et al., 2010; Boeri & van Ours, 2013; Esping-Andersen, 2000; Higo & Klassen, 2017). Opponents of the lump of labor fallacy theory argue that keeping older people in work leads to economic growth and rising employment for younger people, and therefore workfare-oriented welfare rather than early retirement is to be progressively pursued by the state (Esping-Andersen, 2000; Gruber & Wise, 2010). While debates over the justifications for raising the statutory pension age are ongoing (Macnicol, 2015), more research has demonstrated that early retirement as a labor-shedding strategy may substantially increase the financial burden imposed on social security systems (Börsch-Supan, 2000; Ebbinghaus, 2015). Moreover, introducing flexible retirement might prompt individuals to retire early and potentially into poverty if they underestimate their financial needs in retirement (Organization for Economic Co-operation and Development (OECD), 2017), which may prompt them to search for jobs again.

The high ratio of retirees searching for jobs again warrants an examination of the incentives for early retirement. The findings of this present study are consistent with the research findings in the GCC region and elsewhere that people who retired unprepared and failed to estimate their financial aspirations or to manage their financial resources in retirement may be pushed to seek financial security through post-retirement work (Barbosa et al., 2016; Diaw, 2018; Organization for Economic Co-operation and Development (OECD), 2017). This study therefore provides evidence to suggest that taking up post-retirement jobs has to do with seeking financial security, continuity, and is associated with employability (Burkert & Hochfellner, 2017; de Wind et al., 2016; Sewdas et al., 2017). An earlier study of Saudi retirees also highlighted the diversity of retirement adjustment trajectories and motivations for

post-retirement work (Al-Ubaidi, 1994). Previous research also supports the argument that retirees, and those who were pushed out of the labor market in particular, may have a low sense of equal social worth and thus are motivated to engage in post-retirement work (Fasbender et al., 2016; Jensen et al., 2020). Abu Dhabi retirees' self-activation after retirement, therefore, is not merely about financial needs or incentives.

Over the past several decades, welfare states have been reformed, with incentives to retire early having been offered, modified, or reduced (Ferrera, 2008). While many of the reforms are neoliberalism-oriented and the assumptions for increasing the age of retirement need to be revisited (Macnicol, 2015), policy-makers in Abu Dhabi should explore the complexity of labor market dynamics in the Emirate and examine the effects of early retirement on youth employment and on the financial sustainability of pension systems, as arguably it is high employment rate rather than a low level of open unemployment that underpins universal welfare states. The current social policies and programs also need to be reviewed to ensure that the needs of women in education, health care, and social services are sufficiently met (Al-Jenaibi, 2015), as older women tend to be passively and negatively affected by the retirement and post-retirement policies.

Improving the financial sustainability and performance efficiency of Abu Dhabi's current welfare system should be given a priority (Abu Dhabi Retirement Pension & Benefits Fund, 2021). The collective cost of government welfare is accelerating and may continue to grow rapidly. Generous government spending on a universal social welfare system has to achieve financial sustainability. The efficiency of pension funds may be achieved through a recalibration from "old age protection" to "societal integration" to solve the allocative and distributive dilemma of the welfare state (Ferrera & Rhodes, 2000). Pension schemes could be used more actively as a social policy instrument (Morel et al., 2012; Robalino, 2005), as most European countries have already taken these important steps in the field of pensions since the 1990s. On the other hand, Abu Dhabi, it is worth exploring whether pension benefits should be linked to the performance of the economy, wage developments, and demographic developments.

## Limitations

Advancing the understanding of the retirement decision process and post-retirement life requires a holistic and integrative perspective. An emerging consensus is reached in the literature that welfare systems should be understood as a product of distinct state-building processes. This research, however, has restricted itself to discussions of Abu Dhabi's retirement systems and policies without firmly examining the quantitative and qualitative evidence of the development and performance of the welfare state in Abu Dhabi. There

are also data limitations, as organizational factors and institutional factors were not adequately accounted for in this study.

## Conclusion

This study contributes to the growing literature on the effects of multiple demographic, social, psychological, and institutional factors on retirement in a less researched socio-economic context. It offers new insights into how early retirement incentives embedded in pension schemes may affect retirement timing in light of engendered social division of labor between males and females and discusses the need for pension reforms in the Emirate of Abu Dhabi.

International developments have seen that labor and employment policies should be understood and framed as life course policies. Flexible employment patterns and more choices for older workers require the support of social security systems. As far as Abu Dhabi is concerned, later statutory retirement could help lengthen the contribution years, shorten benefit payment years, and therefore reduce the dependency ratio for a PAYG system. Capitalizing on the steady economic growth and on a young and growing population, Abu Dhabi can also invest in new forms of flexibility for the workforce and engage in institutional innovation for social services. These may include multi-tiered welfare systems, occupational and private pensions with multi-pillar systems for pension financing, and the introduction of compulsory savings and insurance into the current transfer system.

## Key points

- Retirement timing of Emiratis living in Abu Dhabi was framed by financial considerations, family circumstances, individual factors, social norms, and demographic contexts of the emirate;
- Early retirement incentives offered within the emirate affected Emiratis' retirement timing, which had implications for the engendered labor market;
- Securing more financial resources and feeling detached from society were significant predictors of Emiratis' motivation toward post-retirement job searching.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Funding

The author(s) reported that there is no funding associated with the work featured in this article.

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## Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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