Eda Orhun*, Wifag Adnan and Mouawiya Alawad

Determinants of Early Retirement in the UAE

Abstract: The purpose of this paper is to analyze the retirement behavior of UAE nationals by understanding the socio-economic characteristics of early retirees and identifying the main determinants of early retirement. Accordingly, a survey study is created and deployed for current employees and retirees affiliated with Abu Dhabi Retirement and Pension Benefit Fund (ADRPBF). The survey was designed to reach 100 retirees and 200 currently active workers from those registered at the ADRPBF. The survey was conducted by employing the online survey method and face-to-face interviews. The total number of respondents is around 244, with a total response rate of 81.33%. Some factors related to the psychosocial work environment play a significant role in the early retirement decision of Emiratis. These factors are stress level, autonomy level and authority level at work. In addition to these, the level of work environment comfortability and life-work balance seem to also affect the early retirement decision. In general, the results indicate that higher the stress level, lower the level of autonomy and authority; higher the early retirement decision within the Emirati workforce. Last but not least, the likelihood of early retirement increases significantly if employees face a work-related health problem. Initiatives at the government and company level to adjust the working conditions for the capacity of elderly people shall be considered. Healthy living campaigns and sport programs might be launched to reduce work-related health problems and consequently early retirement. Our work is the first comprehensive study exploring the early retirement decision of the UAE nationals. One limitation of our study is the limited number of participants in the survey. Future work that will include a higher number of participants and supplementary questions to cover more job features (physical workload, other psychosocial factors) might be helpful.

*Corresponding author: Eda Orhun, College of Business, Zayed University, Khalifa City Campus, Abu Dhabi, United Arab Emirates, E-mail: eda.orhun@zu.ac.ae
Wifag Adnan, New York University (NYU) Abu Dhabi Campus, NYU Abu Dhabi, United Arab Emirates
Mouawiya Alawad, Zayed University, Dubai, United Arab Emirates

1 Introduction

Labor force participation is key for a country to keep sustainable economic growth by contributing to product and service markets. However, the issue of early retirement creates an obstacle to achieve the optimal level of labor force participation. In this respect, researchers have been trying to understand the main determinants of early retirement and the characteristics of early retirees in several countries.

This paper tries to find the answers of these questions for the case of the United Arab Emirates (UAE). UAE is a country that is mainly populated by expatriates who are not given any rights to benefit from the UAE retirement programs. On the other hand, actual citizens of the UAE only make up 13% (1,084,764) of the total population which is 9,456,628 as of 2019 according to the World Bank's data. UAE, being a developing country in the MENA region and also heavily relying on oil revenues, aims to provide the best possible pension benefits for its citizens to fulfill the objectives of high social welfare and protection. However, when we look at the age distribution of the citizens, approximately 48% of the citizen population in the Emirate of Abu Dhabi is between the age of 20–60 which makes up the current workforce and are the potential retirees of the future. On the other hand, current retirees (citizens aged above 60) account only for 4% of the total citizen population of Abu Dhabi[1] (Statistics Centre Abu Dhabi 2021, www.scad.ae). These figures suggest that affording the cost of pension benefits is expected to get more difficult for the UAE government in the next few decades as there is a large amount of middle-aged Emiratis. This expectedly increasing burden on the state pension funds might even get worsened due to the phenomenon of early retirement. UAE confronts the early retirement problem especially owing to the flexibility of the pension system. Although the legal retirement age is set as 60 for men and 55 for women by the pension law passed in 2000 in the Emirate of Abu Dhabi, Abu Dhabi Retirement and Pension Benefit Fund (ADRPBF) still provides pension or end of service gratuity to retirees after 25 years of service (15 for a female with a dependent child/children) at any age. Although the replacement rates are expected to be high considering the income level and the average replacement rate of the selected

---

1 The total citizen population of the Emirate of Abu Dhabi make up aproximately half (49.5%) of the total citizen population of the whole UAE.

countries from the Middle East and North Africa (MENA) region which is around 75% according to the World Bank, there exists no explicit data for the case of UAE as this kind of information is treated as sensitive and private in the UAE culture (Robalino 2005). We expect not only one factor solely determining the early retirement decision but a combination of both "push" and "pull" factors to be important while making the decision as in the case of Henkens and Tazelaar (1994, 1997) who find that the replacement rate not to be a significant determinant despite its high level at around 80% for the Netherlands.

As we have highlighted above, early retirement comes with costs for the country such as the loss in the contribution of experienced nationals to the development of the nation and an increase in the demand for foreign workers that may aggravate the implicit costs in the long run. Last but not least, the workers' contribution to the pension fund does not match with the length of benefit period meaning that early retirement will impose a larger financial burden on the system in the future.

In this respect, this paper aims to analyze the retirement behavior of UAE nationals by understanding the socio-economic characteristics of early retirees and identifying the main determinants of early retirement. For this purpose, we utilize a survey study of retirees and current employees of ADRPBF. We also aim to project the future aspects of early retirement and provide policy recommendations and proposals of actions in order to increase the efficiency of the national pension system. The following section provides a review of earlier studies related to early retirement in other countries. To our best knowledge, there is no previous work that studies the case of Abu Dhabi or the UAE in detail in a similar fashion to this paper.

2 Literature Review

There are a few earlier studies from MENA countries looking at the pension systems and the issue of early retirement. Mohamed (2002) highlights that Gulf countries have unique social insurance schemes with a continuous escalation in their costs, due to their generosity. The paper offers solutions for this problem such as increasing contribution rates, increasing the retirement age and restricting early retirement, rather than switching to a defined contribution system. Similarly, Loewe (2009) also underlines that pension schemes in the MENA region are on average more generous compared to other countries in the world even in the case of early retirement. In particular, early retirement pensions are set at a very high level and often granted too early in life. In addition, many schemes have maximum pension provisions punishing those who contribute for a large number of years. Last but not least, minimum pensions are set at very high levels in many MENA

countries. All these factors may lead to the conclusion that none of the pension schemes in the MENA region is financially sustainable.

On the other hand, the number of international studies on this topic is quite large. Szubert and Sobala (2005) studied the determinants of early retirement in Poland for workers over 45 years of age, before reaching the age of retirement who were employed in selected industrial enterprises. They conclude that disability to work, as assessed by the worker (or health conditions), is the main determinant of early retirement in Poland. Lund and Villadsen (2005) identify demographic characteristics and occupational determinants of transition from employment to voluntary early retirement pension (ERP) in Denmark. They conclude that early retirement increases with age, lower socioeconomic position, lower-skill discretion (employee development possibilities), conflicts in work and uncomfortable work positions. Fisher and Sousa-Poza (2006) study both the institutional and socio-demographic factors of early retirement for European countries. The study shows that while married female workers and those with better education are more likely to retire early, those who are already close to the statutory pension age are less likely to opt for the early retirement. Blondal and Scarpetta (1998) or Duval (2003) working with several countries confirm that early retirement is more prevalent in countries with more generous early retirement regulations. Butler, Huguenin, and Teppa (2004) provide evidence from Switzerland that richer men (as measured by lifetime labor income) compared to poorer men, and singles compared to married people tend to retire early according to the study. Last, Kubicek et al. (2011) reveals that job satisfaction and marital satisfaction are shown to have effects on early retirement.

By considering all the mentioned socio-economic, socio-demographic, work quality, work conditions and well-being determinants delineated in the above studies, a survey study is created and deployed for current employees and retirees affiliated with ADRPBF. The survey strives to understand the Emiratis' viewpoints regarding job satisfaction and early retirement determinants. The survey includes around 66 questions composed of six sections: personal and job information questions, job satisfaction related questions, health issues related to work and work environment questions, retirement benefits questions and finally questions about retirement issues. Job satisfaction related questions ask the participants about the level of decision making authority and autonomy that they have at work, whether they are satisfied with their job, feel comfortable with their work environment, believe to have a fair salary for the job, believe to have a stressful job and similar other questions. Health issues related to work questions include whether the participants have a longstanding illness, whether they believe their health is at risk due to job and related issues and whether they consider early retirement due to health problems. The survey was designed to reach 100 retirees and 200 currently

Table 1: Distribution of subjects by retirement status and gender.

Gender	Active workers	Retirees	Total
Male	69	55	124
Female	81	39	120
Total	150	94	244
Response rate	75%	94%	81.33%

active workers from those registered at the ADRPBF. The survey was conducted by employing the online survey method and face-to-face interviews. The total number of respondents is 244, with a total response rate of 81.33% (see Table 1 below).

3 Determinants

3.1 Sociodemographic Characteristics

The study includes data on gender, age, marital status, level of education, area of education, family size, number of children, whether or not the person has a working spouse and a child below the age of 18. Level of education includes seven different categories covering the cases of no primary school education up to a postgraduate degree. Area of education is set up to include 16 most common specialization areas such as business, engineering, science, etc.

3.2 Psychosocial Work Environment Determinants

Psychosocial work environment determinants are assessed by 10 items which are decision making authority, autonomy, the occurrence of the ambiguity (level of predictability), facing stress at work, comfortability at work, the fairness of the salary, job satisfaction, reward at work, opportunities for professional development and balance between work and personal life.

3.3 Job Characteristics

Job characteristics include variables such as the sector of the job, level of the occupation, number of years worked, total work hours, overtime, flexibility of the work hours, commuting time to work and salary.

3.4 Health-Related Factors

Health-related factors include having a long-standing illness, facing current work-related health problems, current health rating and health friendliness of the work.

4 Analysis

The paper utilizes logistic regression methods to determine the relationship between early retirement and the factors discussed above. Accordingly, Odd ratios (ORs) and 95% confidence intervals (95% CI) will be presented in the following section.

The analysis is performed separately for retirees and current employees who are members of ADRPBF. Since the retirement age is already available for retirees, they are easily classified into early retirees and no-early retirees according to the legal retirement age in Abu Dhabi, UAE. For current workers, their planned retirement age is asked as a separate survey question so that they can be classified as (potential) early retirees or not.

The analysis of sociodemographic factors is executed in two separate steps: while the first step is to calculate the unadjusted (crude) ORs and confidence intervals, the second one calculates the adjusted ones to take into consideration their mutual effects. Following that, a multivariate logistic model is constructed to assess the risk of early retirement by employing all the factors listed in the previous section both for retirees and current workers sample separately. This is done by a three-stage process following Szubert and Sobala (2005). First, for each risk factor, the risk of early retirement is calculated with the unadjusted OR and adjusted for the variables of gender, age, and marital status. Then the variables that affect the risk significantly are kept on for further analysis and separated into groups according to the questionnaire data. In the next stage, for each group containing two variables or more, adjusted ORs for age, gender, marital status, and other variables in the group are calculated. As before, the variables significantly modifying the risk are kept on for further analysis. At the final stage, the multivariate model is estimated with the variables selected during the previous steps.

The risk of early retirement considering the personal variables such as gender, age, and marital status is presented in Table 2. The results of Table 2 show that the risk of early retirement is higher for females. This inference is especially true for female retirees since the risk of early retirement increases more than three and a half times (OR = 3.55) compared to their counterparts. On the other hand, the risk of early retirement decreases significantly as the age increases: while the risk

Table 2: Distribution of subjects and odds ratio of early retirement by gender, age and marital status.

Variables	Current workers			Retirees		
	n	**%**	**OR (95 CI)***	**n**	**%**	**OR (95 CI)***
Gender						
Males	69	46%	1.00	55	58.5	1.00
Females	80	54%	1.60	39	41.5	3.55
			(0.84–3.07)			(1.08–11.74)**
Age		OR per one	0.95		OR per one	0.868
		year increase	(0.91–0.99)**		year increase	(0.78–0.94)**
Marital status						
Single	25	17%	1.76	6	6.4%	1.51
			(0.74–4.23)			(0.17–13.71)
Married	110	74%	1.29	78	83%	0.47
			(0.62–2.70)			(0.1–2.28)
Other	14	9%	1.00	10	10.6%	1.00

Ors 95% CI- crude odds ratio and its 95% confidence interval. **Statistically significant difference at $p = 0.05$.

decreases by 5% for the currently employed, it decreases almost by 15% for the retired group. Next, the study estimates the multivariate model by including gender, age, and marital status, and calculating adjusted ORs for these variables (Table 3).

According to Table 3 results, the significant variables determining the early retirement decision of the retirees are the level of education, health friendliness/safety rating of the occupation, number of children and the salary. The risk of early retirement for retirees decreases greatly with an education level that is high school and/or below (OR = 0.04) compared to a higher education level. Another important result from Table 3 is that the higher the health friendliness of the work conditions, the lower the risk of early retirement (OR = 0.12). The number of children that the retirees have is another significant factor. It is observable that the higher the number of children, the lower the risk of early retirement (OR = 0.74). This result makes a lot of sense considering the nature of the Middle Eastern culture in which the families take on the responsibility of their children's living expenses even when they become adults. Last, the risk of early retirement decreases significantly as salary and age increases as expected (OR = 0.93 and OR = 0.81).

According to Table 4 results, the risk of early retirement for the sample of current workers decreases greatly with low-stress level at work corresponding to more than a 90% decrease (OR = 0.06). Another important result from Table 4 is that the higher the autonomy of the employees at the work, the lower the risk of

Table 3: Multivariate risk model of early retirement for retirees.

Variables	n	% of early retired	ORs	95% CI*
Education				
High school and/or below	33	72.73	0.04	0.001–0.98**
Postsecondary and/or higher	55	80	1.00	
Stress level				
Low stress	30	76.67	0.23	0.007–10.42
Average stress	39	74.36	0.22	0.005–10.24
High stress	19	84.21	1.00	
Autonomy level				
High-autonomy	44	79.55	0.74	0.01–5.22
Avg-autonomy	21	66.67	0.85	0.09–5.89
Low-autonomy	23	75	1.00	
Subjective assessment of salary				
Fair	51	70.6	0.73	0.046–11.64
Not fair	37	86.5	1.00	
Health friendliness/safety rating	–	–	0.12	0.016–0.85**
Life balance				
Good	56	71.43	0.30	0.018–4.82
Not good	32	87.5	1.00	
Longstanding illness				
No	20	75	0.09	0.002–3.04
Yes	68	78	1.00	
No of children	–	–	0.74	0.51–1.06**
Salary	–	–	0.93	0.90–0.99**
Age	–	–	0.81	0.68–0.96**

Ors 95% CI-odds ratio adjusted for age, gender and marital status. **Statistically significant difference at $p = 0.05$.

early retirement (OR = 0.10). Likewise, having high authority and a comfortable environment at work significantly decreases the risk of early retirement. Finally, having no work-related health problem also decreases the occurrence of early retirement more than 85%. As it is for the retirees, the risk of early retirement decreases significantly as salary and age increases as expected for the sample of current workers (OR = 0.99 and 0.92).

At the final stage of our analysis, we combine the samples of retirees and current workers and repeat the multivariate logistic model estimation as described above. Combining the two samples increases our sample size and may give inferences of higher quality regarding the early retirement decision of UAE nationals. Table 5 below presents the results of this estimation for the combined sample.

In the combined sample, the risk of early retirement decreases with low-stress level (OR = 0.31) as it was also the case for the current employees' sample in

Table 4: Multivariate risk model of early retirement for current workers.

Variables	n	% of early retired	ORs	95% CI*
Stress level				
Low stress	28	28.57	0.06	0.006−0.56**
Average stress	69	53.62	0.79	0.16−3.77
High stress	39	69.23	1.00	
Autonomy level				
High-autonomy	52	40.38	0.10	0.009−1.1408**
Avg-autonomy	56	48.21	0.16	0.018−1.38**
Low-autonomy	28	85.71	1.00	
Authority level				
High-authority	44	40.91	0.154	0.021−1.1**
Avg-authority	53	47.17	0.152	0.014−1.63
Low-authority	39	74.36	1.00	
Work environment comfortability				
High-comfortability	85	44.71	0.08	0.006−0.96**
Avg-comfortability	29	55.17	0.39	0.04−3.64
Low-comfortability	22	81.82	1.00	
Ambiguity level				
High-ambiguity	47	68.09	0.668	0.054−8.25
Avg-ambiguity	64	45.31	0.317	0.033−2.97
Low-ambiguity	25	44.00	1.00	
Work-related health problem				
No	43	25.58	0.121	0.029−0.506**
Yes	106	57.55	1.00	
Salary	–	–	0.97	0.90−0.99**
Age	–	–	0.92	0.85−0.99**

Ors 95% CI-odds ratio adjusted for age, gender and marital status. **Statistically significant difference at $p = 0.05$.

Table 4. Another factor affecting the decision of early retirement is the balance between life and work for the combined sample. Emiratis have less tendency to retire early when they have a good balance (OR = 0.33) between their life and work. Furthermore, the level of autonomy at work and work environment comfortability are found to be significant factors for the combined sample as they were significant for the current employees in Table 4. The results indicate that Emiratis are less inclined to retire early if they have higher autonomy (OR = 0.16) at their job. Similarly, better and more comfortable (OR = 0.20) working conditions decrease the risk of early retirement for Emiratis. Having a work-related health problem (OR = 0.21) increases the early retirement decision of Emiratis significantly. This result also matches with the earlier inference taken from the sample of current employees in Table 4. Matching with earlier results, the risk of early retirement

Table 5: Multivariate risk model of early retirement for all sample.

Variables	n	% of early retired	ORs	95% CI*
Stress level				
Low stress	58	53.45	0.31	0.097–1.14**
Average stress	108	61.11	0.80	0.27–2.40
High stress	58	74.14	1.00	
Life balance				
Good balance	122	55.74	0.33	0.10–1.07**
Average balance	41	65.85	0.43	0.11–1.60
No balance	62	74.19	1.00	
Autonomy level				
High-autonomy	96	53.25	0.16	0.045–0.63**
Avg-autonomy	77	58.33	0.18	0.048–0.69**
Low-autonomy	51	84.31	1.00	
Work environment comfortability				
High-comfortability	152	67.86	0.20	0.039–1.10**
Avg-comfortability	42	68.18	0.31	0.066–1.50
Low-comfortability	30	86.67	1.00	
Work-related health problem				
No	63	41.27	0.21	0.088–0.54**
Yes	174	65.52	1.00	
Salary	–	–	0.98	0.90–0.99**
Age	–	–	0.95	0.95–1.02**

Ors 95% CI-odds ratio adjusted for age, gender and marital status. **Statistically significant difference at $p = 0.05$.

decreases significantly as salary and age increase which implies Emiratis are less inclined to retire early as their salary increases and as they become older.

5 Discussion and Conclusion

The analysis of early retirement decision highlights the importance of some elements for the UAE labor market and also confirms some of the results of the earlier work for different regions. Accordingly, the policymakers of the UAE might review these factors in order to decrease the level of early retirement in the future. Some factors related to the psychosocial work environment play a significant role in the early retirement decision of Emiratis. These factors are stress level, autonomy level and authority level at work. In addition, the level of work environment comfortability and life-work balance seem to also affect the early retirement decision. In general, the results indicate that higher the stress level, the lower the level of

autonomy and authority; the higher the early retirement decision within the Emirati workforce.

Low autonomy at work had been identified as a principal factor of early retirement by earlier studies as well (Blekesaune and Solem 2005). Our paper reaffirms this aspect of the UAE job market. Similarly, Lund and Villadsen (2005) had also identified the decision making authority as a key factor of early retirement decision for Danish employees that match with our results. Not having a comfortable workplace also increases the probability of early retirement especially for currently employed Emiratis. Achieving a good balance between work and life also significantly decreases the risk of early retirement in the combined sample of retirees and current employees. Similar psychosocial influences such as job control (autonomy/decision latitude), job satisfaction, unjust supervision and lack of authority were brought forward as important determinants of quitting job early by earlier literature (see Elovainio et al. 2007; Siegriest et al. 2007; Sutinen et al. 2007). Our study contributes to this strand of literature by studying the unexplored labor market of UAE.

The effect of health-related factors on early retirement decision are also relevant. For the retired sample, the tendency towards early retirement decreases as the health friendliness rating of the job increases. This result confirms the earlier work that has also demonstrated that a poor health condition is one of the main determinants of early retirement (Brenner and Ahern 2000; Karpansalo et al. 2004). It also implies that retired Emiratis might prefer to join the workforce again if they can find a health-friendly occupation. In this respect, the policymakers of the UAE might consider working closely with the early retired UAE nationals to offer them appropriate jobs where their health concerns are considered beforehand. Besides, working conditions might be adjusted to match with the capacity of elderly people. The survey results show that currently employed young Emiratis have a positive attitude towards working after retirement. Accordingly, this positive attitude could easily be harnessed with the right human capital policies. Job switching might also be introduced as a career development program for Emiratis who have reached a certain age and deal with health issues. These kind of government initiatives would bolster labor force participation and reduce the early retirement which would contribute positively to the UAE economy. Finally, the likelihood of early retirement increases significantly if employees face a work-related health problem. To deal with the worsening well-being and state of health due to heavy work schedules, healthy living campaigns and sport programs might be launched by Emirati companies in order to reduce work-related health problems and consequently early retirement. This result is evident both in the current employees' sample and in the combined sample. Several earlier studies highlighted the importance of health in the early retirement decision in the past as well

(see Rice et al. 2011; van den Berg, Elders, and Burdorf et al. 2010). Thus, our results confirm the validity of this phenomenon in the UAE labor market.

To our best knowledge, our work is the first study exploring the early retirement decision of the UAE nationals. One limitation of our study is the limited number of participants in the survey. Future work that will include a higher number of participants and supplementary questions to cover more job features (physical workload, other psychosocial factors), might shed more light on the topic of early retirement. Together with the current study, such future work would help UAE policymakers to adopt successful policies dealing with the problem of early retirement.

References

Blekesaune, M., and P. E. Solem. 2005. "Working Conditions and Early Retirement: A Prospective Study on Retirement Behavior." *Research on Aging* 27 (1): 3–30.

Blondal, S., and S. Scarpetta. 1998. "Retire Early, Stay at Work?" *The OECD Observer* 212 (1): 15–9.

Brenner, H., and W. Ahern. 2000. "Sickness Absence and Early Retirement on Health Grounds in the Construction Industry in Ireland." *Occupational and Environmental Medicine* 57 (9): 615–20.

Butler, M., O. Huguenin, and F. Teppa. 2004. "What Retires Early Retirement? Results from Swiss Pension Funds." *CEPR Discussion Paper No. 4394*.

Duval, R. 2003. "The Retirement Effects of Old-Age Pension and Early Retirement Schemes in OECD Countries." *OECD Economics Department Working Papers*, No. 370.

Elovainio, M., P. Forma, M. Kivimaki, T. Sinervo, R. Sutinen, and M. Laine. 2007. "Job Demands and Job Control as Correlates of Early Retirement Thoughts in Finnish Social and Health Care Employees." *Work & Stress An International Journal of Work, Health & Organizations* 19 (1): 84–92.

Fischer, J. A. V., and A. Sousa-Poza. 2006. "The Institutional Determinants of Early Retirement in Europe." *University of St. Gallen Economics Discussion Paper No. 2006–08*.

Henkens, K., and F. Tazelaar. 1994. "Early Retirements of Civil Servants in the Netherlands." *Journal of Applied Social Psychology* 24 (21): 1927–43.

Henkens, K., and F. Tazelaar. 1997. "Explaining Retirement Decisions of Civil Servants in The Netherlands: Intentions, Behavior and the Discrepancy Between the Two." *Research on Aging* 19: 139–73.

Karpansalo, M., P. Manninen, J. Kauhanen, T. A. Lakka, and J. T. Salonen. 2004. "Perceived Health as a Predictor of Early Retirement." *Scandinavian Journal of Work, Environment & Health* 30 (4): 287–92.

Kubicek, B., C. Korunka, J. M. Rayma, and P. Hoonakker. 2011. "Psychological Well- Being in Retirement: the Effects of Personal and Gendered Contextual Resources." *Journal of Occupational Health Psychology* 16 (2): 230–46.

Loewe, M. 2009. "Pension Schemes and Pension Reforms in the Middle East and North Africa." *German Development Institute Bonn Working Paper*.

Lund, T., and E. Villadsen. 2005. "Who Retires Early and Why? Determinants of Early Retirement Pension Among Danish Employees 57–62 Years." *European Journal of Ageing* 2 (4): 275–80.

Mohamed, Z. S. 2002. "Social Insurance Schemes in the Gulf Countries." *International Social Security Review* 55 (4): 157–69.

Rice, N. E., I. A. Lang, W. Henley, and D. Melzer. 2011. "Common Health Predictors of Early Retirement: Findings from the English Longitudinal Study of Ageing." *Age and Ageing* 40 (1): 54–61.

Robalino, D. A. 2005. *Pensions in the Middle East and North Africa Time for Change*. The World Bank. Also available at https://openknowledge.worldbank.org/bitstream/handle/10986/7427/343580PAPER0 MN101OFFICIAL0USE0ONLY1.pdf?sequence=1.

Siegrist, J., M. Wahrendorf, O. von dem Knesebeck, H. Jurges, and A. Borsch-Supan. 2007. "Quality of Work, Well-Being, and Intended Early Retirement of Older Employees-Baseline Results from the SHARE Study." *European Journal of Public Health* 17 (1): 62–8.

Statistics Centre Abu Dhabi. 2021. *Statistical Yearbook of Abu Dhabi 2016 Population and Demography*. Retrieved from https://www.scad.ae/Release%20Documents/SYB- 2016%20EN%20Population%20and%20Demography%20PD.pdf.

Sutinen, R., M. Kivimaki, M. Elovainio, and P. Forma. 2007. "Associations between Stress at Work and Attitudes towards Retirement in Hospital Physicians." *Work & Stress An International Journal of Work, Health & Organizations* 19 (2): 177–85.

Szubert, Z., and W. Sobala. 2005. "Current Determinants of Early Retirement Among Blue Collar Workers in Poland." *International Journal of Occupational Medicine and Environmental Health* 18 (2): 177–84.

van den Berg, T. I. J., L. A. M. Elders, and A. Burdorf. 2010. "Influence of Health and Work on Early Retirement." *Journal of Occupational and Environmental Medicine* 52 (6): 576–83.